STAFF REPORT

TO: Operations Committee
AC Transit Board of Directors

FROM: David J. Armijo, General Manager


ACTION ITEM

RECOMMENDED ACTION(S):

Authorize the General Manager to accept the transfer of one Van Hool fuel cell bus from ClearEdge Power along with release of remaining warranty and service agreements with ClearEdge Power as of May 23, 2014, pending Federal Transit Administration (FTA) authorization and verification of the completion of all grant obligations.

EXECUTIVE SUMMARY:

ClearEdge Power is discontinuing participation in the transportation sector of the fuel cell market and has offered to transfer one of their fuel cell buses to AC Transit. Formerly, the bus was leased to Connecticut Transit as part of the Connecticut Nutmeg Fuel Cell Bus Project. As compensation for the transfer of the fuel cell bus to AC Transit, ClearEdge Power has requested AC Transit to discontinue their obligation for the final six months of the contract warranty and service requirements for the last fuel cell powerplant that AC Transit received from UTC Power.

ClearEdge Power petitioned the FTA earlier this year to authorize transfer of this bus to AC Transit. Staff has requested that ClearEdge Power provide documentation of authorization by FTA’s upper management and legal staff for transfer of the bus, along with documentation verifying the completion of all FTA grant obligations.

BUDGETARY/FISCAL IMPACT:

The District currently has $88,000 in fuel cell grant reserve funds that will be used to prepare the Nutmeg fuel cell bus for AC Transit service. Staff has estimated a total cost of approximately $38,000 for the transfer of the bus and preparation for service at AC Transit (i.e., paint, upholstery, passenger counter, camera system, etc).

BACKGROUND/RATIONALE:

ClearEdge Power, the firm that purchased UTC Power, has decided to discontinue participation in the transportation sector of the fuel cell market.
The bus being offered by ClearEdge Power is built to virtually the same specifications as our existing fuel cell buses. The fuel cell itself has approximately 2,500 hours of service and has an expected life in excess of 10,000 hours. The bus will need to be repainted and rebranded with AC Transit decals, and we will need to install radios, fareboxes, and Clipper equipment in the same manner as any new bus. Camera systems and passenger counters are normally installed on new buses by the bus manufacturers during production, but in this case, AC Transit will need to install this equipment on the bus to ensure consistency with the remainder of the fleet. The District will use fuel cell grant funds reserved for equipment purposes to prepare the bus for service.

As compensation for the transfer of the fuel cell bus to AC Transit, ClearEdge Power has requested AC Transit to discontinue their obligation for the final six months of the contract warranty and service requirements for the last fuel cell AC Transit received from UTC Power. The warranty, service, and support agreement for fuel cell powerplant (006) expires in November 2014. Fuel cell powerplant 006 is a new powerplant that has not been placed in service, and is currently being stored at D-4 until such time that one of the two older fuel cells are no longer serviceable.

ClearEdge Power petitioned the FTA, who funded all four buses, earlier this year to authorize transfer of this bus to AC Transit. While FTA staff has endorsed this proposal, a final decision by FTA’s upper management and legal staff has not been provided by ClearEdge Power. In addition, ClearEdge Power has indicated that this bus has fulfilled all FTA grant obligations; however, staff is still waiting for ClearEdge Power to provide documentation to verify the completion of the grant obligations.

ADVANTAGES/DISADVANTAGES:

The advantages of accepting the bus after verification from the FTA authorization and fulfillment of grant obligations is the expansion of the fuel cell bus fleet with limited financial impact to fuel cell grant reserve funds.

The disadvantages of authorizing the transfer of the bus is the loss of the final six months of the contract warranty and service requirements for the last fuel cell AC Transit received from UTC Power; however, fuel cell powerplant 006 is a spare powerplant and will only be placed into service upon failure of one of the two older fuel cells.

ALTERNATIVES ANALYSIS:

There are no alternative actions associated with this report.

PRIOR RELEVANT BOARD ACTIONS/POLICIES:

There are no prior relevant Board Actions or Board Policies associated with this report.
ATTACHMENTS:

1: ClearEdge Power Letter to AC Transit Board President dated June 20, 2013
2: ClearEdge Power Letter requesting FTA authorization to transfer bus to AC Transit
3: Connecticut Nutmeg Fuel Cell Bus Project Description

Department Head Approval: James Pachan, Chief Operating Officer
Reviewed by: David A. Wolf, General Counsel
Prepared by: James Pachan, Chief Operating Officer
Mr. Greg Harper
AC Transit Board of Directors-President
1600 Franklin St.
Oakland, CA 94612

Subject: Nutmeg Fuel Cell Bus for AC Transit

Mr. Harper,

ClearEdge Power (CEP) is pleased to offer ownership of our Van Hool A300L "Nutmeg" fuel cell bus, VIN # YE2UF25B3A2064973, to AC Transit at no cost. This offer is made to AC Transit as CEP works to minimize disruption to our transportation customers as a result of the strategic decision by CEP to no longer participate in the transportation sector of the fuel cell market. This bus includes a fully operational fuel cell (serial number PM0010-1) and the fuel cell becomes the property of AC Transit upon completion of this transaction. CEP will also provide service and support of PM0010-1 powerplant at no cost to AC Transit through May 23, 2014. In consideration of the transfer of this bus and the fuel cell powerplant, AC Transit agrees to release CEP from any warranty obligations CEP may have for the fuel cell powerplants installed in buses currently owned by AC Transit and shall be released from any service obligations for such fuel cells as of May 23, 2014. CEP’s offer to transfer this bus to AC Transit is subject to prior consent by the Federal Transit Administration (“FTA”) in accordance with the rules governing the grant agreements under the National Fuel Cell Bus Program. CEP is pursuing this consent and anticipates that it will be received shortly.

The cost to transport the fuel cell bus from its present location at CT Transit in Hartford, CT to AC Transit in Oakland, CA, will be the responsibility of AC Transit. However, should AC Transit accept this offer, arrange for and ship the bus and supply CEP with a complete shipping invoice no later than close of business on June 28th, CEP will reimburse AC Transit for shipping cost to the extent that CEP is reimbursed for such shipping costs under its sub-recipient agreement with NAVC under the National Fuel Cell Bus Program with FTA.

By executing this letter below, AC Transit accepts this offer and agrees that for all powerplants previously provided to AC Transit by UTC Power under a sales contract and powerplant PM0010-1 transferred hereunder, there shall be no further warranty obligation as of the date of this letter and all remaining service obligations shall be in accordance with the terms of applicable contracts except that no service obligation shall extend beyond May 23, 2014. CEP shall be relieved of any obligation that would require the removal, repair and testing of the fuel cell outside of any bus. CEP and AC Transit agree that this letter, once executed by both parties, shall constitute an amendment to any sales contract providing warranty and service for UTC Power fuel cells and such agreement(s) shall be considered amended consistent with the terms of this letter.

Very truly yours,
ClearEdge Power, Inc.

Jennifer L. Adamy
Vice President, Secretary & General Counsel

Agreed and Accepted,
AC Transit

Date: _______________________

By: (Print) ____________________
Title: ________________________
Subject: Nutmeg Fuel Cell Bus Disposition

Ms. Sheila Lynch  
Executive Director  
Northeast Advanced Vehicle Consortium  
112 South Street, 4th Floor  
Boston, MA 02111

Ms. Lynch,

As part of the contract completion on the Nutmeg Fuel Cell Bus Program under the NFCBP and pursuant to our meeting on April 11, ClearEdge Power (CEP) is in the process of finalizing the disposition of the four fuel cell buses acquired under the Nutmeg program. This letter addresses two of the Nutmeg buses.

In accordance with the asset disposition guidelines provided in the FTA letter to NAVC dated Jan 25, 2013:

- The FTA also is willing to support a transfer of the equipment to one or more transit agencies that may operate the buses in order to further the goals of the program. Such a transfer would not require compensation to the Federal Government as long as the vehicles continue to be used to further the goals of the program.

To further the FTA goal of completing the PC58 contract with a new party, ClearEdge Power is offering one "Nutmeg" fuel cell bus to that program at no cost. The bus asset will enable the company acquiring the CALSTART contract the opportunity to perform verification testing and other integration related activities. Although the currently installed powerplant is close to the end of its usable life, the bus could be used as a test vehicle for the PC58 powerplant for a demonstration project at a future time. Since time is of the essence to ensure the smooth transition of the project, the bus is scheduled to be transferred shortly after the program decision on May 3.

Additionally, ClearEdge Power is offering one of the Nutmeg buses to AC Transit at no cost to further the goals of that successful program. The bus and fuel cell have about 75% of their usable life remaining and should provide years of public transit operation to the greater San Francisco community.

If there is any reason for the FTA to object to the placement of these two buses acquired under the "Nutmeg" program, please let us know prior to May 12, 2013 so that a timely transition of these assets to support the mentioned programs can be properly planned.

Best Regards,

[Signature]

Eileen Bartley  
Fleet Program Manager  
ClearEdge Power  
Mobile: 860-593-2985
Demonstrating Advanced-Design Hybrid Fuel Cell Buses in Connecticut

The Federal Transit Administration's (FTA) National Fuel Cell Bus Program (NFCBP) focuses on developing commercially viable fuel cell bus technologies. The Northeast Advanced Vehicle Consortium (NAVC) is one of three non-profit consortia chosen to manage projects competitively selected under the NFCBP. UTC Power is leading one project to develop a next-generation fuel cell bus based on an earlier-generation design that was demonstrated in several locations, including Connecticut Transit (CTTRANSIT). Four of these next-generation buses are now in service at CTTRANSIT in Hartford, Connecticut, as part of the Nutmeg Project.

CTTRANSIT is the Connecticut Department of Transportation owned bus service operating a fleet of over 800 heavy duty transit buses in Greater Hartford, New Haven, Stamford, New Britain, Bristol, Meriden, Wallingford and Waterbury, Connecticut. CTTRANSIT currently operates five hydrogen fuel cell transit buses which is the second largest hydrogen fuel cell bus fleet in the United States. This fleet will increase to six buses in 2012. CTTRANSIT's commitment to improving the environment has led the agency to investigate new technologies and fuels for its fleet that are more efficient and produce fewer emissions.

Early Fuel Cell Bus Experience

CTTRANSIT's experience with its first fuel cell bus made it an excellent location choice for demonstrating the new bus design. The agency began demonstrating its first fuel cell bus in April 2007 in a downtown shuttle service. Through May 2011 the bus accumulated more than 54,000 miles, providing CTTRANSIT and the manufacturer partners with valuable data on the bus operation and performance. The manufacturers used the early results from this demonstration (and the demonstrations of four similarly-designed fuel cell buses in Oakland and Thousand Palms, California) to improve the system and components, thus increasing efficiency, reliability, and durability.

Nutmeg Project Details

The Nutmeg Project, named for Connecticut's state nickname, is fielding a fleet of four next-generation fuel cell buses under the NFCBP. UTC Power, a unit of United Technologies Corporation that produces fuel cells for on-site building power and transportation applications, is providing the fuel cell system. Since developing its first fuel cell power system for buses in...
the late 1990s, UTC Power's fuel cell systems have powered buses in the United States, Italy, Spain, Holland, and Belgium. Building on this experience, the company is leading the Nutmeg project through NAVC. UTC Power owns the four buses and works in partnership with CTTRANSIT to operate the buses in service. While CTTRANSIT currently operates all four buses, UTC Power is exploring opportunities to showcase a bus in other fleets.

The Nutmeg buses new design features significant improvements over the two previous generations of fuel cell buses. Improvements include a redesigned Van Hool chassis that is 6,000 lb lighter in weight and 3 inches shorter in height than the earlier generation buses. The buses have the newest UTC Power fuel cell power system and an advanced lithium ion energy storage system by EnerDel. Van Hool fully integrated the hybrid design using a Siemens hybrid electric system. The system is also capable of a higher top speed than the previous model could achieve, which allows it to be operated on most of the agency's routes.

CTTRANSIT has built a new garage to store up to six hydrogen fueled buses. Construction of a hydrogen fueling station at the CTTRANSIT Hartford facility property is underway. This station will fuel one or two buses a day on site while the remaining fleet will continue to be fueled at the UTC Power headquarters station located about seven miles away.

In-Service Evaluation

To evaluate the technology, FTA has enlisted the help of the National Renewable Energy Laboratory (NREL). NREL will collect and analyze data from all of the NFCBP bus demonstrations to ensure consistency; additionally, NREL will collect and analyze performance and operations data from a selection of diesel buses in similar service. Consistent data collection and analysis will ensure fair and accurate information and comparisons, document the status and progress of fuel cell buses toward commercialization, and provide information to the transit industry to aid in purchasing decisions. The results will also be fed back into the research and development process to appropriately focus future resources.

More Information

CTTRANSIT: www.cttransit.com
UTC Power: www.utcpower.com
Van Hool: www.vanhool.com
NAVC: www.navc.org
NREL fuel cell bus publications: www.nrel.gov/hydrogen/proj_fc_bus_eval.html

Northeast Advanced Vehicle Consortium (NAVC)

Advanced transportation for the Northeast
NAVC is a public-private partnership with the goal of promoting advanced vehicle technologies in the northeastern United States. Since it was established in 1993, NAVC's projects have included alternative fuel, battery electric, hybrid electric, and fuel cell technologies in a variety of vehicle platforms.

U.S. Department of Transportation
Federal Transit Administration

FTA's National Fuel Cell Bus Program (NFCBP) is a cooperative research, development, and demonstration program, established in 2006, to advance the commercialization of fuel cell electric buses. The program is part of a broader FTA research effort designed to improve transit efficiency and deliver environmentally sustainable transportation solutions. Conducted in close partnership with the industry, the program has secured over $62 million in local and private commitments, matching the Federal contribution. The teams and projects are competitively selected and managed by three non profit consortia. The project portfolio includes development and demonstration projects, component projects, and analysis and coordination efforts.

Prepared for FTA under the NFCBP by the National Renewable Energy Laboratory
DOT/FTA - NFCBP - FS3 - July 2011
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