

**A RESOLUTION  
BY TRANSPORTATION COMMITTEE**

**08-*R*-0242**

**A RESOLUTION AUTHORIZING THE MAYOR TO EXECUTE AN APPROPRIATE DOCUMENT AMENDING, COMBINING AND RESTATING CERTAIN REIMBURSABLE AGREEMENTS WITH THE ATLANTA AIRLINES TERMINAL CORPORATION FOR THE REPLACEMENT OF CENTRAL PASSENGER TERMINAL COMPLEX TERMINAL CENTRAL PLANT EQUIPMENT, PHASE 1 AND PHASE 2, FOR A COST TO THE CITY NOT TO EXCEED \$10,976,903 TO BE CHARGED TO AND PAID FROM CODE COMBINATION IDENTIFICATION NUMBER 5502 (AIRPORT RENEWAL AND EXTENSION FUND) 180201 (DOA AVIATION CAPITAL PLANNING AND DEVELOPMENT) 5414002 (FACILITIES OTHER THAN BLDGS/INFRASTRUCTURE-CIP) 7563000 (AIRPORT) 101352 (TERMINAL IMPROVEMENTS) 81246 (DOA CP AMT GARBS 93DA) 0000 00000000 00000000; AND FOR OTHER PURPOSES.**

**WHEREAS**, the City of Atlanta Airport (“Airport”) has entered into certain Lease Agreements, dated March 22, 1978, with various airlines serving the Airport (“Contracting Airlines”), which cover the planning, design, development, construction, maintenance, and operation of the Central Passenger Terminal Complex (“CPTC”) at the Airport, with the City having responsibility for capital replacement items in the CPTC; and

**WHEREAS**, the Contracting Airlines formed Atlanta Airlines Terminal Corporation (“AATC”) to manage and operate the jointly leased and common use areas of the CPTC, including mechanical plants, on behalf of the Airlines and the City collectively; and

**WHEREAS**, under the Phase 1 Reimbursable Agreement, the TCP assets to be replaced or overhauled included an electric chiller, two steam driven chillers and associated pumps, pursuant to authorizing Resolution 06-R-1663, adopted by Council of the City on August 21, 2006, and approved by the Mayor on August 29, 2006; and

**WHEREAS**, under the Phase 2 Reimbursable Agreement, TCP assets to be replaced or overhauled included cold water, chilled water, and hot water pumps, a steam driven chiller, automated control systems, and a cooling tower, pursuant to authorizing Resolution 07-R-1880, adopted by Council of the City on September 17, 2007, and approved by the Mayor on September 24, 2007; and

**WHEREAS**, the Department of Aviation Engineering Division has now determined that replacing the existing steam driven chillers with electric chillers is appropriate from a cost and space efficiency standpoint, and

**WHEREAS**, accordingly, the City desires to authorize AATC to replace existing steam driven chillers with new electric driven chillers and two additional pump replacements, thus providing flexibility and capacity for future CPTC expansion projects; and

**WHEREAS**, in order to accomplish this, it has been determined that it is desirable and in the best interests of the City to combine the Phase 1 Reimbursable Agreement with the Phase 2 Reimbursable Agreement in the form of an Amended and Restated Reimbursable Agreement that addresses the new scope of this Project;

**NOW, THEREFORE, BE IT RESOLVED BY THE CITY OF ATLANTA, GEORGIA**, that the Mayor is authorized to execute on behalf of the City an appropriate document amending, combining and restating the Phase 1 Reimbursable Agreement and Phase 2 Reimbursable Agreement with AATC for the procurement and installation of new electric driven chillers, additional pumps and associated infrastructure with the reimbursement of the cost by the City to AATC in an amount not to exceed \$10,976,903, and providing that the Contractor is expected to achieve substantial completion of the project within 885 calendar days from the date of the Notice to Proceed.

**BE IT FURTHER RESOLVED**, that all contracted work will be charged to and paid from Code Combination Identification Number 5502 (Airport Renewal and Extension Fund) 180201 (DOA Aviation Capital Planning and Development) 5414002 (Facilities Other Than Bldgs/Infrastructure-CIP) 7563000 (Airport) 101352 (Terminal Improvements) 81246 (DOA CP AMT GARBS 93DA) 0000 00000000 00000000.

**BE IT FURTHER RESOLVED**, that the City Attorney is directed to prepare an appropriate document for execution by the Mayor.

**BE IT FINALLY RESOLVED**, that this document will not become binding on the City and the City will incur no liability under it until it has been executed by the Mayor, attested to by the Municipal Clerk, approved as to form by the City Attorney and delivered to AATC.

## Terminal Central Utilities Plant Upgrade

### **Proposal:**

DOA Engineering has proposed to upgrade the existing Terminal Central Utilities Plant (T-CUP) by replacing existing steam-driven chillers with new electric-driven chillers. The proposal was presented to the DOA Executive Office and the Airline Steering Committee and was accepted as the preferred method in mid November 2007. This plant upgrade will provide the flexibility and capacity for future CPTC expansion projects. It will also reduce operating costs and increase the environmental friendliness of our facility.

### **History:**

The T-CUP (built in 1978) contains two 30-year old steam driven chillers, hot and cold water pumps, cooling towers, and automatic control systems, all of which are at the end of their useful life.

The original plan was to replace the steam chillers, in kind, because of the limitations of the existing electrical infrastructure. Over the past few years, several electrical energy conservation projects have been implemented. These projects have reduced the total load on the 4-cable electrical infrastructure which feeds the CPTC. Recent monitoring of the CPTC peak summer load(s) has determined that the high voltage (19.8 kV) 4-cable system does have sufficient spare capacity to serve the proposed electrical chiller installation. The availability of this spare electrical capacity allows us to shift direction and recommend the installation of electric chillers.

### **Justification:**

Electric chillers are more cost effective to run than their steam driven counterparts. In the past two decades, the cost of natural gas has risen above the cost of electric power on a 'dollars per ton of cooling' basis. Because of this trend, switching to electric-driven chillers is an effective way to reduce energy costs.

Electric chillers are more space efficient. By switching to electric chillers, we can increase the chilled water production within the same footprint of the existing Plant. The maximum chilled water which can be produced in the T-CUP using steam driven chillers is 12,500 tons. This maximum increases to 16,500 tons if we make the switch to all electric chillers. This additional capacity will allow for future CPTC expansion projects to be served from the existing T-CUP and not require construction of additional utility plant infrastructure.

### **Benefits:**

The primary reason to switch to electric chillers as apposed to steam driven chillers is the reduced operating cost of electricity versus gas. The utility cost reduction alone should allow a reasonable (less than 10 year) payback. The ability/ flexibility to handle over a million square feet of additional future building without having to build supplemental utility plant infrastructure is also a significant consideration. The decreased maintenance costs and reduced detrimental

impact to the environment also help justify the switch. The following is a brief summary of the major benefits which validate our proposal for the all electric chiller alternative:

- **Reduced operating costs:**
  - Reduced operating costs of the plant due to generating chilled water with lower cost electrical power instead of natural gas.
  - We estimate a savings to be in the \$250,000 to \$450,000 range annually.
- **Reduced water consumption:**
  - Reduced water consumption because electric-driven chillers require less cooling tower water per ton than steam-driven chillers. Boiler blow-down and make-up water will not be required while steam boiler operation is eliminated during the cooling season.
  - We estimate a potential savings in the 10,000,000 gallon annually order of magnitude.
- **Reduced fossil fuel emissions:**
  - Reduced emission of various products of combustion will occur due to the reduction of operation run time of the gas-fired steam boiler during the summer months.
- **Reduced maintenance costs:**
  - Reduced maintenance costs because steam-driven chillers are more maintenance-intensive as compared to electric chillers.
  - Free up T-CUP operators to help with other facility wide maintenance tasks.
- **Reduced overall Program construction costs:**
  - Overall Program construction costs are greatly reduced due to elimination of need to construct future utility plant.
  - The cost to make these chiller plant modifications is estimated to be some \$25,000,000 less than the estimated cost of building a new plant at some point in the future.

**Part II: Legislative White Paper:** (This portion of the Legislative Request Form will be shared with City Council members and staff)

**A. To be completed by Legislative Counsel:**

**Committee of Purview:**

**Caption:**

**Council Meeting Date:**

**Requesting Dept.:**

**FAC Confirmed by:**

**B. To be completed by the department:**

**1. Please provide a summary of the purpose of this legislation (Justification Statement).**

The purpose of this legislation is to authorize the Mayor to execute an Amendment to the Central Passenger Terminal Complex ("CPTC") Terminal Central Plant ("TCP") Equipment Replacement Reimbursable Agreement Phase 1 and Phase 2.

**2. Please provide background information regarding this legislation.**

The Terminal Central Utility Plant (TCUP) is to consolidate the scope and budgets of the Central Passenger Terminal Complex ("CPTC") Terminal Central Plant ("TCP") Equipment Replacement Reimbursable Agreement Phase 1 and Phase 2. The Department of Aviation's mechanical group reviewed the future requirements for cooling and heating in the CPTC area based on future requirements of the CPTC terminal expansion and found that a new utility plant would not be required if the existing plant was converted to an all electrical plant. This will also reduce emissions output and operational cost.

In 1999, as part of the Atlanta Airlines Terminal Corporation lease agreement with the City of Atlanta ("AATC"), the AATC commissioned a Facility Assessment and Condition Survey of the TCP assets, and in early 2000 the facility assessment and condition survey (Law/Gibb report) concluded that the majority of the equipment in the CPTC TCP was approaching the end of its useful life and would have to be overhauled or replaced.

In the summer of 2006 the Central Passenger Terminal Complex ("CPTC") Terminal Central Plant ("TCP") Equipment Replacement Reimbursable Agreement Phase 1 was initiated to replace a 833 ton electric chiller and a 2500 ton steam turbine driven chiller and phase 2 was implemented in the fall of 2007 to replace the cooling tower and the 2800 ton steam turbine driven chiller. During the period from the summer of 2006 to fall of 2007 the planning effort for the terminal expansion became clear so that mechanical engineers could evaluate the cooling and heating loads for the future expansion. The engineers study reveal that changing the existing into an all electric plant would reduce cost and eliminate the need for a second utility plant. To change the existing plant from steam and electric to all electric will require additional electrical infrastructure. The electrical infrastructure will position the plant to

accommodate future growth as in the facilities as demand for cooling and heating is required by the passenger loads of the future.

**3. If Applicable/Known:**

- (a) **Contract Type (e.g. Professional Services, Construction Agreement, etc):** N/A
- (b) **Source Selection:** N/A
- (c) **Bids/Proposals Due:** N/A
- (d) **Invitations Issued:** N/A
- (e) **Number of Bids:** N/A
- (f) **Proposals Received:** N/A
- (g) **Bidders/Proponents:** N/A
- (h) **Term of Contract:** N/A

**4. Fund Account Center (Ex. Name and number):**

CCIN 5502 180201 5414002 7563000 101352 81246 0000 00000000 00000000.

**5. Source of Funds: *Example: Local Assistance Grant***

**6. Fiscal Impact:** \$10,976,903

*Example: This legislation will result in a reduction in the amount of \_\_\_\_\_ to Fund Account Center Number \_\_\_\_\_.*

**7. Method of Cost Recovery:** General Airport Revenue Bonds

**Examples:**

- a. Revenues generated from the permits required under this legislation will be used to fund the personnel needed to carry out the permitting process.*
- b. Money obtained from a local assistance grant will be used to cover the costs of this Summer Food Program.*

**This Legislative Request Form Was Prepared By:** Tommy Thomas, Jr., Planning and Development, 404-530-5551.

City of Atlanta  
Department of Aviation  
Hartsfield-Jackson Atlanta International Airport

H-JDP

**LEGISLATION WHITE PAPER**

|                         |  |
|-------------------------|--|
| Council Meeting Date    | February 18, 2008  |
| Legislation Title       | Amendment to the Central Passenger Terminal Complex (“CPTC”) Terminal Central Plant (“TCP”) Equipment Replacement Reimbursable Agreement Phase 1 and Phase 2.  |
| Justification Statement | <p>The Terminal Central Utility Plant (TCUP) is to consolidate the scope and budgets of the Central Passenger Terminal Complex (“CPTC”) Terminal Central Plant (“TCP”) Equipment Replacement Reimbursable Agreement Phase 1 and Phase 2. The Department of Aviation’s mechanical group reviewed the future requirements for cooling and heating in the CPTC area based on future requirements of the CPTC terminal expansion and found that a new utility plant would not be required if the existing plant was converted to an all electrical plant. This will also reduce emissions output and operational cost.</p>   |
| Background              | <p>In 1999, as part of the Atlanta Airlines Terminal Corporation lease agreement with the City of Atlanta (“AATC”), the AATC commissioned a Facility Assessment and Condition Survey of the TCP assets, and in early 2000 the facility assessment and condition survey (Law/Gibb report) concluded that the majority of the equipment in the CPTC TCP was approaching the end of its useful life and would have to be overhauled or replaced.</p> <p>In the summer of 2006 the Central Passenger Terminal Complex (“CPTC”) Terminal Central Plant (“TCP”) Equipment Replacement Reimbursable Agreement Phase 1 was initiated to replace a 833 ton electric chiller and a 2500 ton steam turbine driven chiller and phase 2 was implemented in the fall of 2007 to replace the cooling tower and the 2800 ton steam turbine driven chiller. During the period from the summer of 2006 to fall of 2007 the planning effort for the terminal expansion became clear so that mechanical engineers could evaluate the cooling and heating loads for the future expansion. The engineers study reveal that changing the existing into an all electric plant would reduce cost and eliminate the need for a second utility plant. To change the existing plant from steam and electric to all electric will require additional electrical infrastructure. The electrical infrastructure will position the plant to accommodate future growth as in the facilities as demand for cooling and heating is required by the passenger loads of the future.</p> |

Funding Source                    CCIN 5502 180201 5414002 7563000 101352 81246 0000  
00000000 00000000; \$10,976,903

Method of Cost Recovery    General Airport Revenue Bonds

Prepared by                    Carl E Harper                    Date: December 10, 2007

TRANSMITTAL FORM FOR LEGISLATION

TO: MAYOR'S OFFICE

ATTN: GREG PRIDGEON

Dept.'s Legislative Liaison: Anita Williams

Contact Number: 404-530-6600

Originating Department: Aviation

Committee(s) of Purview: Transportation

Chief of Staff Deadline: 1/30/08

Anticipated Committee Meeting Date(s): 2/13/08

Anticipated Full Council Date: 2/18/08

Commissioner Signature: [Signature]

Chief Procurement Officer Signature: [Signature]

CAPTION

A RESOLUTION AUTHORIZING THE MAYOR TO EXECUTE AN APPROPRIATE DOCUMENT AMENDING, COMBINING AND RESTATING CERTAIN REIMBURSABLE AGREEMENTS WITH THE ATLANTA AIRLINES TERMINAL CORPORATION FOR THE REPLACEMENT OF CENTRAL PASSENGER TERMINAL COMPLEX TERMINAL CENTRAL PLANT EQUIPMENT, PHASE 1 AND PHASE 2, FOR A COST TO THE CITY NOT TO EXCEED \$10,976,903 TO BE CHARGED TO AND PAID FROM CODE COMBINATION IDENTIFICATION NUMBER 5502 (AIRPORT RENEWAL AND EXTENSION FUND) 180201 (DOA AVIATION CAPITAL PLANNING AND DEVELOPMENT) 5414002 (FACILITIES OTHER THAN BLDGS/INFRASTRUCTURE-CIP) 7563000 (AIRPORT) 101352 (TERMINAL IMPROVEMENTS) 81246 (DOA CP AMT GARBS 93DA) 0000 00000000 00000000; AND FOR OTHER PURPOSES.

FINANCIAL IMPACT (if any) \$10,976,903

Mayor's Staff Only

Received by CPO: (date) Received by LC from CPO: (date)

Received by Mayor's Office: 1/30/08 (date) [Signature] Reviewed by: [Signature] (date)

Submitted to Council: (date)