



THE STATE OF NEW HAMPSHIRE
DEPARTMENT OF TRANSPORTATION



54

Bonds

CHRISTOPHER D. CLEMENT, SR.
COMMISSIONER

JEFF BRILLHART, P.E.
ASSISTANT COMMISSIONER

February 4, 2014
Bureau of Aeronautics

Her Excellency, Governor Margaret Wood Hassan
and the Honorable Council
State House
Concord, NH 03301

Retroactive

REQUESTED ACTION

Authorize the Department of Transportation to **retroactively** amend a grant to provide additional funding to the City of Manchester (Vendor Code 177433) for AIP-89, to realign the solar photovoltaic (PV) facilities (panels) that were originally constructed as part of this grant at the Manchester-Boston Regional Airport. The total federal share of the project, including the amendment, will increase from \$3,341,589.00 to \$3,842,827.00, which equates to an increase of \$501,238.00, or 95 % of the grant amendment amount. The amendment to the Federal participation in the amount of \$501,238.00 is available for this project effective upon Governor and Council approval through March 31, 2017. The original grant was approved by Governor and Council on November 9, 2011 Item #121. 100% Federal Funds

Funding is available as follows:

FY 2014

04-96-96-960030-1789

FAA Projects

034-500151 Bonded Expenses

\$ 501,238.00

EXPLANATION

An amendment from the Federal Aviation Administration (FAA), AIP-89, was awarded (copy attached) to the Manchester-Boston Regional Airport, to realign the solar photovoltaic (PV) facilities (panels) that were originally constructed as part of the AIP-89 grant at the Manchester-Boston Regional Airport. Due to the potential impact on aircraft operation safety at the airport, the realignment of the solar panels is currently underway; therefore the Department was unable to avoid this retroactive request. The airport removed the existing solar panels last November prior to inclement winter weather. The airport is seeking reimbursement from the FAA for the actual FAA eligible costs associated with solar panel realignment.

After the solar panels were installed, it was determined that the panels cast a glare that negatively impacted, during certain times of the day, the visibility from the Airport Traffic Control Tower (ATCT). Realignment of the solar panels is needed to remediate the adverse impacts of solar glare on the ATCT

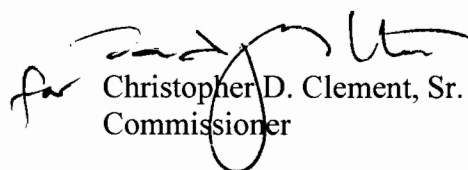
operation. While a solar glare analysis was completed with the original design effort, the concept of solar panels on and around airports is still in its infancy and the techniques used to perform a solar glare analysis have evolved considerably in the time since the design of the facility. Additional analyses performed by two independent industry experts using the latest tools and theories have resulted in similar findings, both of which require the realignment of the panels to adequately remediate solar glare to the ATCT.

The Department of Transportation proposes to accept the Federal Funds for this project as a pass through to the City of Manchester in accordance with RSA 422:15. The City of Manchester will contribute an additional \$26,381.00 (5% Local Share). The total additional funds requested for this grant is \$527,619.00.

In addition to the FAA grant amendment, the airport also received an additional \$1.4 million in an insurance settlement from the consultant originally working on the project to be used for the realignment effort of the solar panels. The total cost to realign the solar panels, including studies, incurred airport operating costs and construction phase consulting services is \$1,927,619.00.

Please note that the state general funds are not matching Federal funds for this project, however, Federal funds have been previously approved in HB25, 2009, 145:1, XII-A Capital Budget.

Sincerely,


Christopher D. Clement, Sr.
Commissioner

CDC/tls
Attachment:

RECEIVED

FEB - 4 2014

NH AERONAUTICS



U.S. Department
of Transportation
**Federal Aviation
Administration**

Federal Aviation Administration
New England Region

12 New England Executive Park
Burlington, MA 01803

February 3, 2014

Mr. Richard Fixler
Assistant Airport Director
Manchester-Boston Regional Airport
One Airport Road, Suite 300
Manchester, NH 03103

Airport Improvement Program Grant #3-33-0011-089-2011
DUNS Number 07-533-9106
Manchester International Airport, Manchester, NH
Letter Amendment No. 1

Dear Mr. Fixler:

This is in response to your letter dated November 8, 2013, requesting an amendment to the above referenced Grant Agreement to increase the maximum grant obligation of the United States to cover project cost increases.

In accordance with the subject grant, the maximum obligation of the United States as shown in Condition No. 1 on Page 2 of Part I - Offer is increased from \$3,341,589.00 to \$3,842,827.00, an increase of \$501,238. The purpose of this amendment is to cover the Federal share of total actual costs determined to be eligible and allowable project costs.

All other terms and conditions of the Grant Agreement remain in full force and effect.

Under the terms of the Grant Agreement, this document is incorporated into and constitutes Amendment No. 1 to the above referenced Grant Agreement.

Sincerely,

Bryon H. Rakoff
Acting Manager, Airports Division

Cc: Carol Niewola, NH DOT



THE STATE OF NEW HAMPSHIRE
DEPARTMENT OF TRANSPORTATION



G+C 11/9/11
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CHRISTOPHER D. CLEMENT, SR.
COMMISSIONER

JEFF BRILLHART, P.E.
ASSISTANT COMMISSIONER

October 27, 2011
Bureau of Aeronautics

His Excellency, Governor John H. Lynch
and the Honorable Council
State House
Concord, NH 03301

REQUESTED ACTION

Authorize the Department of Transportation to award a grant to the City of Manchester (Vendor Code 177433), for AIP-89, to design and install a solar photovoltaic (PV) facility at the Manchester-Boston Regional Airport. State and Federal participation in the amount of \$3,341,589.00 is available for this project effective upon Governor and Council approval through November 30, 2014.
100% Federal Funds

Funding is available as follows:

FY'12

04-96-96-960030-1789

FAA Projects

034-500151 Bonded Expenses

\$ 3,341,589.00

EXPLANATION

A Federal Aviation Administration (FAA) grant has been awarded for \$3,341,589.00 (copy attached), which represents 95% of funding required to design and install a solar photovoltaic (PV) facility at the Manchester-Boston Regional Airport.

The Manchester-Boston Regional Airport will purchase and install approximately 42,000 square feet of solar panels on the top floor of the parking garage. The solar panel canopy will minimally interfere with the parking and will provide limited covered parking on the top level. The project is expected to have a capacity of 525 kW and is predicted to generate nearly 650,000 kWh of electricity annually. The new system is expected to save the airport approximately \$100,000 in the first year in electricity costs including revenue from Renewable Energy Credits (REC's).

This project is being funded under the FAA Airport Improvement Program (AIP) Voluntary Airport Low Emissions Program (VALE). The airport is eligible for funding under the VALE program because the airport is located in an area designated by the U.S. Environmental Protection Agency's (EPA) National Ambient Air Quality Standards as a non-attainment for ozone and maintenance area for carbon monoxide (CO). The installation of the solar panels will generate clean renewable electricity on site, reduce fossil fuel air emissions, and greatly reduce the operating costs for the airport.

The airport solicited design-build teams to design and install the solar PV system. The airport issued a request for proposal for the project (bid tabulation sheet is attached). One qualified bid was received for this project. A second bid proposal was received after the submittal deadline, but due to the City of Manchester procurement rules, the bid could not be accepted. The low bidder for the solar PV project is Pennoni Associates, Inc. The airport negotiated with Pennoni Associates for the final design and cost of the project.

The cost breakdown of project is as follows:

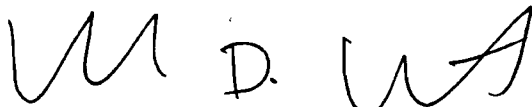
Sponsor Administration	\$ 158.10
Independent Fee Estimate	\$ 1,380.00
Preliminary Engineering	\$ 27,425.00
Engineering Fees	\$ 188,500.00
Design Build Contract	<u>\$ 3,300,000.00</u>
Total	\$ 3,517,463.10

The Department of Transportation accepts the Federal Funds for this project as a pass through to the City of Manchester in accordance with RSA 422:15. The City of Manchester will contribute \$175,874.10 (5 % of this project) toward this project. The total cost of this airport improvement project is \$3,517,463.10.

In the event that the federal funds are no longer available, General Funds will not be requested to support this program.

Please note that the state funds are from the General Fund and have been previously approved in HB25 Capital Budget.

Sincerely,



Christopher D. Clement, Sr.
Commissioner

CDC/tls1
Attach: