



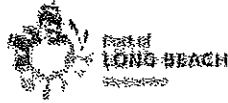
Greenhouse Gas Emissions Reduction Mitigation Grant Program Final Construction Report

Note to Grant recipients: This report will supply the Port with information about the completion of your GHG Grant project. We are interested to know about project successes, problems, and measures that you will take to ensure the project meets or exceeds the useful life described in your grant application. Now that your project is finished, we want to know what kind of metrics you will use, and the frequency of those measurements, to determine the effectiveness of your project in reducing greenhouse gas emissions. Use as much space as you need for each field; there is no page limit. For more information, please contact the Port's GHG Grant program manager at (562) 293-7100.

General Information	
Grant Recipient Organization Name	Aquarium of the Pacific
POB Contract Number	HD-8126
Grant Project Title	Boiler Replacement

Expenditures	
Total Grant Award	\$389,447.00
Total POB Grant Funds Expended	\$389,447.00
Total POB Grant Funds Invoiced to Date	0
Total Project Cost	\$417,560.57
Will you be applying for a rebate?	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No : If yes, amount:

Project Completion/Evaluation	
What was the project completion date?	08/27/14
On a scale of 1 to 10, how satisfied were you with the project implementation?	<input type="radio"/> 1 <input type="radio"/> 2 <input type="radio"/> 3 <input type="radio"/> 4 <input type="radio"/> 5 <input type="radio"/> 6 <input checked="" type="radio"/> 7 <input type="radio"/> 8 <input type="radio"/> 9 <input type="radio"/> 10
Were the project costs the same as what you expected?	<input type="checkbox"/> Yes <input type="checkbox"/> No, they were less <input checked="" type="checkbox"/> No, they were more
Would you recommend this type of project to an agency or organization similar to yours?	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No



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<i>Describe any significant problems you had in implementing this project. What were the notable successes?</i>	The only problems that were encountered during the implementation of this project were due to the permitting process for the new boilers and the final installation/start-up/commissioning process to be able to ensure that the system is performing as designed. These issues were resolved through a coordinated effort between the Aquarium staff, contractor, and consultants. The end result was a system the is meeting its targeted energy and GHG reductions.
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Metrics and Measurements	
<i>What metric will you use to determine the effectiveness of your project in reducing, capturing, or avoiding GHG emissions? How will it be calculated?</i>	The metric used is Kg-CO2e/Yr. The savings are based on an audit of the existing conditions, review of utility data, trending existing conditions, modeled performance based on manufacturer specs, and trended actual performance. From there GHG reduction could be calculated based on kwh and therm savings
<i>How frequently will you be collecting these measurements?</i>	<input type="checkbox"/> Weekly <input checked="" type="checkbox"/> Monthly <input type="checkbox"/> Yearly <input type="checkbox"/> Other:
<i>If your project has an educational aspect, what type of data will you collect to determine its effectiveness?</i>	n/a

Project Maintenance	
<i>What type of maintenance will you conduct to ensure that your project produces GHG emission reduction benefits throughout or beyond the warranted or predicted life of the equipment/materials?</i>	Aquarium Facilities Technicians will perform and log Daily Boiler rounds. Data will be collected to an WUFOO IPAD App. Any malfunctions will be addressed Daily with in house staff. Maintenance will be performed as described in Harsco Installation and Owners Manual Part # 1004905922 (See attached document.) Each boiler has internal alarms connected via BACNET to Building automation. Alarms are displayed at Boiler Graphics screen with visual and audible alarms and on boilers.
<i>How often will you need to perform maintenance on your project?</i>	<input checked="" type="checkbox"/> Weekly <input type="checkbox"/> Monthly <input type="checkbox"/> Yearly <input type="checkbox"/> Other:

You may attach documentation relating to the completion of your project. This documentation may include receipts, invoices, meeting sign-in sheets, photographs, fliers, media coverage, educational materials, or presentations.

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