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## ASW ENGINEERING MANAGEMENT CONSULTANTS

September 28, 2011

To: The SCE ISP evaluation team  
SCE

From: Dennis Rowan, PE  
ASW Engineering

Re: Investigations of Energy Efficiency Measures and Industry Standard Practice  
[Blow Molder Controller Retrofit Project]

Dear ISP team,

ASW has conducted a review of the Blow Molder Controller Retrofit Project and recommends that SCE consider that the project is not industry standard practice.

### **PROJECT BACKGROUND**

A large plastic container manufacturer produces various containers and bottles for numerous customers out of many different materials. Their facility typically operates five days a week, 24 hours a day, primarily producing containers and bottles ranging from five gallons to one quart made from “HDPE”, using low pressure, blow molding machines.

The project is to remove the original controls and install new PLC controllers on the production line blow molders which will allow the machines to run with a more consistent process and increase overall production yield. By replacing the existing controllers with the newer model controller, the new PLC controller is stated to provide a more consistent process, improve cycle time and increase production yield.

### **METHODOLOGY**

ASW interviewed the site maintenance manager. The project was confirmed installed and operational and there are M&V activities scheduled that will validate the estimated savings with data loggers and subsequent calculations. The site maintenance manager indicated that the project savings were evident in their operations due to the cycle times being visibly reduced coupled with an increase in production. He further stated that the new controllers were providing a more consistent product. The base machines are the same, but with the new controllers, the production speed is up and the quality is improved. They are very pleased with the project.

When asked about their willingness to implement the project in the absence of the incentive program, the indication was a strong 5 out of 5 that the program was the deciding factor for this implementation. The respondent’s demeanor was very sincere.

Upon further investigation, it became apparent that this site has been trying to implement this measure for many years, but the economics were not sufficiently cost effective without the program incentives. They simply could not get management to move on the project without the added incentive.

ASW made several attempts to contact another packaging company, considered to be an additional resource for information about these types of machines, or at least this type of technology, without success.

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ASW presents the following matrix of factors for your consideration regarding the Blow Molder Controller Retrofit Project:

**Table 1: Factors indicating Industry Standard Practice**

<b>Factors Indicating Industry Standard Practice</b>	<b>Significance ( 1 – 3 ) 1=low, 3=high</b>	<b>Significance Explanation</b>
The ASW review of project documentation revealed that the site referenced follows a philosophy of striving to maximize energy efficiency. The proposed measure reduces production cycle times.	1	Rising energy costs push management to support energy efficiency improvements. Production cycle time reductions are a significant factor in energy efficiency improvements.
The ASW review of project documentation revealed that the proposed measure improves the product.	1	Product improvements are a continuing goal of manufacturing companies.

**Table 2: Factors indicating Non-Industry Standard Practice**

<b>Factors Indicating Non-Industry Standard Practice</b>	<b>Significance ( 1 – 3 ) 1=low, 3=high</b>	<b>Significance Explanation</b>
Project economics were not sufficiently cost effective without the program incentives. The program was the deciding factor for this implementation.	3	Management would not approve the project without the incentives. Without the program influence, the measure would not have been implemented.
The machine works well with the old system and did not need replacement to continue to operate.	2	Production adheres to delivery schedules and maintains production schedules using existing machines without alterations as standard practice.

The factors in Table 1 indicating the project is Industry Standard Practice (ISP) are outweighed by the factors in Table 2 indicating the project is Not Industry Standard Practice. The primary consideration being that it involves the removal of an existing control system, which came with the machine in question, and is in good working order, and replacing it with an alternative model. The machine works well with the old system and management refused to implement the project until the program offered the incentive to make the project more attractive through the incentives offered.



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### CONCLUSIONS

- ASW recommends that SCE consider that the project is not industry standard practice since it involves replacing the existing control system with an alternative model, and management refused to implement the project without the program incentive.

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