

## First Ex Ante Review Findings

Table 1-1: Project Information

<b>IOU</b>	PG&E
<b>Application ID</b>	1481-08
<b>Application Date</b>	1/29/2015
<b>Program ID</b>	PGE20127
<b>Program Name</b>	Heavy Industry Energy Efficiency Program
<b>Program Year</b>	2015
<b>CPUC Project ID</b>	X525
<b>IOU Ex Ante Savings Date</b>	6/10/2015
<b>Measure Name</b>	Install new automotive paint process
<b>Project Description</b>	The project is a new paint booth system in an automotive manufacturing facility. The project includes the installation of the pretreatment dip tanks, electro-deposition undercoating tank, paint spray booths including the HVAC systems and emissions abatement systems serving them.
<b>Date of CPUC Staff Review</b>	June 12, 2015
<b>Primary Reviewer / Firm</b>	Sue Haselhorst / ERS
<b>Review Supervisor / Firm</b>	Jeff Hirsch / James J. Hirsch & Associates
<b>CPUC Staff Project Manager</b>	
<b>CPUC Staff Policy Authorization (as needed)</b>	
<b>Type of Review (Desk, On-site, Full M&amp;V, Tool)</b>	Desk
<b>CPUC Staff Recommendation</b>	The ex ante savings estimates are not approved. CPUC Staff find the PA's inability to follow the ex ante savings review process very disappointing. The PA must make significant improvements in its internal procedures to carefully follow the ex ante review process required by D.11-07-030. CPUC Staff are uncomfortable with the fact that this project has far too many parallels to the Commission staff ex ante review process deficiencies identified by CPUC staff for project number NC0127206. In this project the PA again has not followed CPUC policy

	<p>and guidance, which leads staff to conclude that the PA lacks a serious commitment to improve its performance.</p> <p>For this project, CPUC Staff require that the PA perform additional ISP research adding independent subject matter experts (SME's), expanding comparable project descriptions and addressing the ISP of other energy savings technologies. Savings impact analysis and M&amp;V methods will likely require revision and additional review, pending the outcome of the ISP research. Due to strong indications of free-ridership and lack of credible program influence indicators, CPUC staff may conduct an NTG interview depending on the outcome of the ISP review.</p> <p>CPUC Staff will continue to review this project after receiving the PA's response to the requirements listed below. CPUC Staff reserve the option to disqualify the project based on future additional information obtained from the PA or other sources.</p> <p>Staff reminds the PA that its decision to allow the project to proceed into construction before ANY project documentation was provided to Commission staff for review does not in any manner inhibit the ultimate outcome of the staff review from governing any and all incentive payments (using EE funds) or any savings claims.</p>
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**Measure Description**

According to the PA's project documentation, there are two high-volume automotive body paint shops at this automobile manufacturer. Shop A, where currently all automotive body painting now occurs, will be repurposed with all production moved to Shop B. Shop B, which is the subject of this new construction application, has never been utilized by the current owner and remains idle from the previous owner's use which ended 6-8 years ago. Shop B, theoretically has the capacity to meet both the current production levels, as well as an expected increase in production. However, shop B technology does not meet the current manufacturer's requirements

for output quality. Shop A does not have the capacity to meet the projected demand and does not apparently have the technology to meet the current manufacturer's future requirements.

The current design for both shops includes all related services for pre-treatment, electro-deposition of undercoats, oven treatment, sanding, primary and finishes coats, and oven treatment at various stages. The associated shop systems include carriages fixtures (to transport the automobile bodies through the painting process), thermal oxidizers for VOC abatement, and exhaust air emissions abatement using a wet scrubber design.

The proposed new construction project in Shop B, as described by in the PA's PCIP report, includes the carriage fixtures and dip tanks designed to minimize tank and booth volume, paint delivery, electrostatic precipitation for particulate removal for emissions abatement (versus wet scrubbing). These design features reduce the volume of material that must be heated, reduce exhaust air volumes, and permit a higher rate of air recirculation reducing the volume of fresh air requiring conditioning as compared to an ISP baseline which the PA claims is the existing process. The primary mechanisms of savings claimed in the PCIP report are described as follows:

- Electro-static precipitation to remove paint particulates from the exhausted air from the paint-booth. The EP process eliminates water transport and laundering and also permits a much higher rate of exhaust air recycling (from 30% to 94%). Since make-up air has to be treated to meet humidity and dry-bulb requirements, heating, reheating, and cooling energy is saved with the lower volume of dryer air. Furthermore, the VOC airstream volume is reduced permitting consolidation to a single RTO.
- Reduced dip tank volumes reduce heat loss through evaporation; specialized carriage fixtures reduce the fixture volume submerged in the tank, reducing heating; and the reduction in paint booth volume, reduces exhaust air.
- Reduced exhaust air volume permits consolidation of VOC airstreams from five to a single RTO
- Energy efficient paint nozzles reduce compressed air demand.
- Replacement of the existing steam boiler with a hot water boiler produces energy more efficiency with less heat loss.
- Additional energy is recovered from the carbon concentrating wheel and the use of a vapor absorption chiller. A new solar thermal system will be netted out of the savings that is not an eligible measure.

The ex ante savings impacts are estimated to be 786,736 kWh, 1,652,124 therms with a peak demand reduction of -779 kW, with a proposed incentive of \$1,637,141 in the 3P implementers PCIP report. The 3P implementer indicates that this is a New Construction project type. The PA's "checklist" document shows the ex ante savings impacts are estimated to be 9,540,000 kWh, 775,000 therms with a peak demand reduction of 300 kW, with a normal replacement project type. (Note: it is unclear which set of values represent those submitted for review.)

### **Summary of Review**

The Program Administrator (PA) first uploaded documents to the CMPA on 2/25/15 for this project. CPUC Staff performed a cursory review of those documents and determined from the PA's project review documents, that the PA had identified significant outstanding unresolved issues for this project. CPUC Staff concluded that the project was not ready for Staff review because of the unresolved issues identified in the PA's review. The PA submitted revised documentation on 6/10/2015 for this first ex ante review including the following:

- 1481-08 Cost and Saving Worksheet.xlsx;
- 1481-08 Exhibit 1 Paint Shop Schematic.xlsx;
- 1481-08 Exhibit 2 Paint Shop Power Data H1 2014 kd.xlsx;
- 1481-08 Exhibit 3 South Paint Shop Utility Data H1 2014 V2 Jul 24.xlsx;
- 1481-08 Exhibit 4 Eisenmann Motor and Thermal Loads Rev H Oct 31-kd.xlsx;
- 1481-08 Exhibit 5 Paint Shop Variable Process Heating Demand V2 Jul 24;
- 1481-08 Exhibit 6 Flow Meters Vs. Production Graphs-05.12.15.xlsx;
- 1481-08 Exhibit 7 Process HVAC Bin SimVF 10.21.14.xlsx;
- 1481-08 Exhibit 8 Existing South Paint Shop Equipment H Oct 31.xlsx;
- 1481-08 Exhibit 9 Existing Building HVAC BIN Sim 11.3.14.xlsx;
- 1481-08 Exhibit 10 Gas True up by EEM 01.29.15.xlsx;
- 1481-08 MV Plan Rev 2 May 18.pdf;
- Exhibit 1481-08 MV1 Motor Inventory and Sample Size Calculator Rev 2 May 18.xlsx;
- Exhibit 1481-08 MV2 South Paint Detailed Lighting Inventory-KD 4.24.15.xlsx;
- 1481-08 Form 2 [CUSTOMER NAME] Motors Paint Shop Upgrade V4.pdf;
- 1481-08 [CUSTOMER NAME] Motors Paint Shop Upgrade Phase I New Load May 21.pdf;
- 1481-08 [CUSTOMER NAME] Paint Shop Checklist.xlsx;
- 1481-08 V5.1 Letter of Transmittal.pdf;
- LMSI PGE Final External Policies-Procedures.docx;
- Note to Commission Staff Regarding [CUSTOMER NAME] \_final.docx;

- Response to [REVIEWER NAME] QC Comments Project 1481-08 May 18.pdf; and
- Response To May 7 [REVIEWER NAME] Comments on Revised M & V Plan May 18.pdf.

CPUC Staff have reviewed the submitted documentation. According to the documentation provided by the PA (file named “Note to Commission Staff Regarding [CUSTOMER NAME] \_final.docx”):

- The 3P implementer initiated this project in late 2013 when they met with the customer and their consultants to quantify energy efficiency opportunities for different paint booth design options.
- The project progressed through early 2014, and the customer signed a Program Participation Agreement for the 3P Program on June 11, 2014.
- The project was selected by the Commission Staff (CS) for parallel review on June 27, 2014. (Note that CPUC Staff investigation has determined that the PA submitted the project on the 6/9/2014 bi weekly list, and that the PA was notified by CPUC Staff that the project was selected for review on 6/17/2014, not 6/27/14 as stated by the PA.)
- The PA has informed Commission staff that the 3P implementer granted permission for the customer to order equipment immediately after the PA’s initial technical approval on July 31, 2014. (This documentation has not been supplied for review.)
- As of June 4, 2015, the equipment has been delivered to the site but not connected to the plumbing and electrical systems. The PA believes this project status is equipment not installed and as such, the project is consistent with recent CPUC Staff direction.
- In an effort to provide CPUC Staff with project documents that adhered as closely as possible to the technical and policy details described in recent dispositions, the PA delayed uploading additional project documents.

Although this project was selected for CPUC Staff review on June 17, 2014, CPUC Staff observe based on the PA’s documentation (file named “Note to Commission Staff Regarding [CUSTOMER NAME] \_final.docx”):

- That PA did not upload any documents to the CMPA for this project until 2/25/2015, nearly 8 months after the PA states that the incentive agreement was executed by the 3P implementer and the customer (6/11/2014). The incentive agreement was executed one day after the PA placed the project on the bi-weekly list for CPUC Staff review.
- The customer and the 3P implementer appear to have executed an incentive agreement before the PA had issued its initial technical approval on 7/31/2014. (This “Form 2”

participation agreement signed by the implementer and customer and including savings and incentive estimates was signed on June 10, 2014 but the savings estimates were modified multiple times by January 2015 all before the first document upload to the CPUC CMPA. It is unclear if or what savings and incentive values were provided in the documents provided to the customer at some point then signed and dated 10 June 2014.)

- The 3P implementer granted permission for the customer to order equipment immediately after the PA's initial technical approval on 7/31/2014.
- After the PA's technical review was completed in July 2014, the PA did not upload any documents to the CMPA for CPUC Staff review until 2/25/2015.
- The PA did not provide meaningful status or reviewable details of this project with CPUC Staff during any of the placeholder calls prior to uploading documents to the CMPA on 2/25/2015.
- Construction on this project is likely well advanced. Various media reports for this high profile project have indicated that the project is expected to be completed within the next few months.

In a disposition provided to the PA by CPUC Staff in December 2014 for PA project number NC0127206, CPUC Staff provided a summary of the ex ante review process which is repeated below:

- For all custom projects, D.11-07-030 requires that:
  - Pipeline projects shall not have signed incentive agreements before CPUC Staff have an opportunity to select or waive a project via the bi-monthly CMPA project list submission.
  - For projects selected for ex ante review, CPUC staff must have an opportunity to review and approve complete project documentation including ex ante savings estimates before incentive agreements are executed by the PA. PAs can choose, after submitting complete project documentation to move forward with the project with the understanding that the outcome of the Commission staff review and approval will become effective as if the project was waiting for the outcome.
  - For all projects, including those selected by CPUC Staff for ex ante review, project installation shall not begin until complete documentation has been compiled into the PA CMPA, ex ante savings parameter estimates have been developed and reviewed by the PA, if the project has been selected for review the complete project documentation has been uploaded to the CPUC CMPA such that

Commission Staff have an opportunity to review and approve project documentation, and a PA/customer agreement has been executed by both parties.. Any exception to this shall be approved in advance by Commission staff.

CPUC Staff find the PA's inability to follow the ex ante savings review process very disappointing. The PA must make significant improvements in its internal procedures to carefully follow the ex ante review process as was detailed in a disposition provided to the PA by CPUC Staff in December 2014 for PA project number NC0127206. CPUC Staff are uncomfortable with the fact that this project has far too many parallels to the deficiencies identified by CPUC staff for project number NC0127206, and CPUC Staff conclude that the PA has made little improvement in its procedures. The PA continues to have significant issues with following CPUC policy and guidance, which leads staff to conclude that the PA lacks a serious commitment to improve its performance.

The PA has stated that the 3P implementer signed an incentive agreement with the customer before the PA had completed its technical review of the project. CPUC Staff require that the PA explain if this procedure is allowed or if this is in fact a violation of the PA's procedures, e.g. are 3P implementers allowed to execute incentive agreements thereby committing ratepayer funds before the PA has completed its project technical review?

CPUC Staff reject the PA's statement that since equipment is onsite, but not yet installed, construction has not commenced. Media information indicated that construction of this project is likely well advanced and nearing completion.

**Baseline.** The Report identifies this project as new construction with an ISP baseline defined by the exhaust air emissions abatement method and whether it is wet scrubbed or cleaned using electrostatic precipitation (EP). Since the existing system is wet-scrubbed, the existing system in Shop A was proposed by the implementer as a proxy for an ISP compliant baseline. The issues with the proposed baseline are as follows:

- At different points in the documentation, this project was classified as new construction and normal replacement. Given the fact that Paint Shop B is now idle, it was commissioned in 1997, the proposed production rate increase over the existing rate, and the new operation is a complete replacement of the existing operation, new construction is the appropriate assignment and thus required. As noted in "Early Retirement Using Preponderance of Evidence" Version 1, a new construction project requires the definition of a baseline, which in this case is ISP, savings calculation approach and estimates, incremental measure cost, and a measure EUL with justification.
- CPUC Staff finds the PA's proposal that the existing Shop A can be considered an ISP baseline or even as a proxy for baseline performance for the new system in Shop B is improbable. ISP is what is being installed today in a similar circumstance, not what was

installed many years in the past to meet different process requirements. The proposed project may, after proper investigation as required in establishing an ISP baseline, be found to be near ISP or ISP, significantly reducing or eliminating any claimable savings impacts associated with this project.

- The report claims an ISP baseline, showing that only two of eleven North American automotive manufacturer paint shop projects since 2010 were installed with EP exhaust air emissions abatement technology establishing wet scrubbers as ISP.
  - This ISP research does not follow the guidelines for high or low rigor and does not meet the standard when an ISP study is waived, per ISP Guide (Version 1.2A).
  - The market share information presented in Table 3.1-2 was provided exclusively by a single party, a manufacturer of the proposed paint booth project, and not by multiple and at least a one, independent party.
  - Table 3.1-2 does not include enough detail to conclude the selected sites are comparable to the 1481-08 site. A project comparable to 1481-08 would have these characteristics:
    - Large volume production in the order of 200,000+ units per year
    - Makes cars for a similar market to 1481-08 (suggest using list price to establish comparable sites)
    - Comparable project replaces all the major paint shop components, including dip-tanks, carriage and fixtures, booths, spray technology, as well as all the auxiliary services including, of course, exhaust air emissions abatement and waste water treatment.
  - If ISP is actually found to be a wet scrubbing system, the configuration of such a system would need to be established and not just assume that the existing such system in shop A is representative of current new installation standard practice. Similarly, if electrostatic precipitation is found to be ISP, then the details of that ISP must be compared to the proposed system to establish any possible difference for ISP. If both methods are found to have similar market share it is likely not possible to attribute any savings to this feature of the design.
  - While the PCIP Report specifically states emissions limitations are not a driver of the project, this issue is not adequately addressed. While the existing shop A wet system in operation and proposed new system at its new design capacity operation

may both meet current permitted emissions limits for the sources in shop A and shop B respectively at the site, the PA must establish that any proposed ISP baseline for the new shop B also meets the site BAAQMD permitted emissions limits for shop B sources at the proposed higher production levels forecasted in the Report as well as any water consumption and waste treatment requirements.

- Table 3.1-2 distinguishes between the exhaust air emissions abatement technology and does not address the ISP of the paint nozzles or the other energy savings design features including the volume reduction design of the carriage fixture, dip-tanks, and paint booths. ISP must be established for each feature for which energy savings is to be estimated.
- The savings methodology uses Shop A as a proxy for the ISP, incorporating the usage of the existing multiple RTOs and an existing steam boiler. The new system in Shop B will have a new boiler and a new RTO sized for the new load. The project baseline should not include a non-code compliant boiler nor the energy usage related to inefficiencies peculiar to Shop A.

CPUC staff request that the Scope of Work descriptions in Table 3-1-2 include details about the project including production capacity, car models, market, and a description of the project scope in enough detail to compare the project 1481-08 in a meaningful way. CPUC staff require the list be expanded to include comparable automobiles (as suggested by the list price) manufactured in Europe and Japan. For example, Porsche installed EP technology in a 45,000 automobile per year production line in 2009 in Germany<sup>1</sup>. The ISP Guidelines require “multiple sources”, therefore the CPUC requires that at least two additional independent SME’s (meaning SME without any connection to the project) be contacted to provide market share data. An ISP must be established for the paint spray nozzles and the design minimizing tanks, booth-size, and fixtures, which are not directly related to the EP exhaust cleaning system. The comparable projects analysis must consider California emissions and waste water requirements as compared to those emissions and waste water requirements for the projects examined.

Furthermore, the ISP baseline study must consider:

- The fact that the customer had to demolish the equipment in Paint Shop B to accommodate the new process.
- The customer’s options to increase its near term and future forecast production while meeting its air quality regulatory requirements under its current permit. Paint shops are significant potential sources of pollution and usually highly regulated by the local AQMD.

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<sup>1</sup> <http://press.porsche.com/news/release.php?id=505>

- The practical considerations for the customer to use the pre-project Paint Shop B emissions control equipment while meeting the new process requirements, current and future capacity requirements and AQMD requirements.
- Whether or not wet scrubbing could have been a new design option given all of the project design constraints.

**Free-ridership.** The facility is replacing an existing, inadequately sized, emissions compliant, painting operation with a new system that “requires a higher degree of skilled maintenance attention” and has over a ten year payback according to the PA’s documentation. The report hints that other factors may be driving the design; for example, the pre/post ovens are not an “apples to apples” comparison and the new ovens will use substantially more energy than the base case implying the new process is fundamentally different. CPUC Staff recommends completion of a NTG survey for this site to confirm the degree to which the installation was influenced by the program. Additional documentation describing implementation cycle of this project and appropriate contacts are required.

**Savings Calculations.** The savings methodology has established baseline usage by monitoring primary services (electricity, natural gas, chilled water, and compressed air) into Shop A and then normalizing for production with an algorithm to separate the base load component and incremental per auto variable load. The savings estimate assumes full production, although the true-up algorithm will account for actual production.

This approach proposes to compare total energy production per vehicle use for the baseline and new construction operation. However, at least two energy streams within the current operation should not be included in the baseline (the boiler and multiple RTOs); ISP research may identify others. Once the ISP research is complete and the baseline for the project as a whole has been defined, the savings calculations and M&V will require revision. It is unlikely that metering of Shop A can be used to establish the performance of an ISP compliant baseline.

## **Review Conclusion**

The ex ante savings estimates are not approved. CPUC Staff find the PA’s inability to follow the ex ante savings review process very disappointing. The PA must make significant improvements in its internal procedures to carefully follow the ex ante review process as was detailed in a disposition provided to the PA by CPUC Staff in December 2014 for PA project number NC0127206. CPUC Staff are uncomfortable with the fact that this project has far too many parallels to the deficiencies identified by CPUC staff for project number NC0127206, and CPUC Staff conclude that the PA has made little improvement in its procedures. The PA has not responded to CPUC Staff’s review of project number NC0127206 and the PA continues to have significant issues with following CPUC policy and guidance, which leads staff to conclude that the PA lacks a serious commitment to improve its performance.

For this project, CPUC Staff require that the PA perform additional ISP research adding multiple independent SME's, expanding comparable project descriptions and addressing the ISP of other energy savings technologies and taking into account emissions permitting requirements. Savings impact analysis and M&V methods may require revision and additional review, pending the outcome of the ISP research. CPUC Staff require that the PA's ISP team closely consult with CPUC Staff on the details and scope of the ISP study. CPUC staff may conduct an NTG interview depending on the outcome of the ISP review.

CPUC Staff will continue to review this project after receiving the PA's response to the requirements listed below. CPUC Staff reserve the option to disqualify the project based on future additional information obtained from the PA or other sources.

## **Summary of CPUC Staff Required Action by the PA**

CPUC Staff require that the PA undertake the following steps and submit the following information not later than 7/2/2015 or 14 days after receipt of this disposition:

1. Provide a description of what action the PA has undertaken to improve in its internal procedures to follow the ex ante review process since receiving the final disposition for PA project number NC0127206 in December 2014.
2. Provide a description of what action the PA plans to take to improve its internal procedures to follow the ex ante review process since receiving the final disposition for PA project number NC0127206 and this disposition, including a schedule for implementing proposed changes.
3. Respond to CPUC Staff's observation that the 3P implementer executed an incentive agreement before the PA technical review was completed for this project. Describe if this is a violation of the PA's procedures or if the PA procedures allow 3P implementers to execute incentive agreements thereby committing ratepayer funds before the PA has completed its technical review of the application.
4. Provide any documentation not previously submitted which has been prepared for this project, including earlier versions of the documents submitted, demonstrating how the PA has influenced the customer to adopt a more efficient design. Commission staff would expect a document showing the incremental costs, energy savings, potential Program incentive, simple payback, etc. of various alternatives would have been prepared to influence the customer's decision to implement a more efficient design alternative. Commission staff note that the incentive agreement provided by the PA is dated 6/11/2014. The project was selected by Commission staff for review in June 2014. Were any additional reports or analysis not previously provided to Commission staff prepared for this project? If so, provide these documents.
5. Resolve the discrepancy between the ex ante savings impacts in the 3P implementers PCIP report (786,736 kWh, 1,652,124 therms with a peak demand reduction of -779 kW, a proposed incentive of \$1,637,141) and the PA's "checklist" document ex ante savings impacts estimate (9,540,000 kWh, 775,000 therms with a peak demand reduction of 300 kW).
6. Resolve the discrepancy between project type in the 3P implementers PCIP report (New Construction) and the PA's "checklist" project type (Normal Replacement).
7. Commission staff require that the PA provide an update on the status of this project and completed and future project milestones. Commission staff expect that the PA will confirm the status of the project with the customer or other knowledgeable representative when responding.

Provide dates, as precise as possible for the following project steps by contacting a knowledgeable customer representative:

- a. Date conceptual design began
  - b. Date detailed design began
  - c. Date of completion of design
  - d. Date order placed for the paint shop equipment
  - e. Construction start date (when modifications to the facility began)
  - f. Construction completion date
  - g. Commissioning completion date
8. Provide the year of original construction for Shops A and B, and the year of any last major renovations to these shops and the estimated last date Shop B was utilized for mass production.
  9. CPUC staff require that the Scope of Work descriptions in Table 3-1-2 include details about the comparable projects including production capacity, car models, market, emissions, and a description of the project scope in enough detail to be able to establish that the projects are comparable to 1481-08 in a meaningful way. The CPUC requires the list be expanded to include comparable products manufactured in Europe and Japan.
  10. Establish an ISP for the paint spray nozzles and the design approach minimizing the volumes of tanks, booth-size, and fixtures, which are not related to the EP exhaust cleaning system. Project details should be sufficient to establish comparability to 1481-08.
  11. CPUC Staff require that the PA's ISP team closely consult with CPUC Staff on the details and scope of the ISP study.
  12. The ISP Guideline requires "multiple sources", therefore the CPUC requests the at least two additional SME's that are not directly connected with the project provide market share estimates.
  13. Establish that the emissions generated by the ISP baseline equipment operating at design production levels are compliant with the facility's BAAQMD emissions permits and all air quality regulations.
  14. Revise the savings calculations and M&V to reflect the final project baseline.
  15. CPUC Staff may conduct a free-ridership survey. In support of the survey, CPUC staff is requesting:
    - a. Provide the name and contact information for the customer contact most knowledgeable about the project genesis and who was also directly involved in the decision making process.



**Table 1-2 Review Findings**

Reviewed Parameter	Analysis
<p><b>Project Baseline Type</b> (Early Replacement, Normal Replacement, Capacity Expansion, New Construction, System Optimization, Add-on Measures, Major Renovation) Note: For early retirement projects only, include RUL through EUL baseline)</p>	IOU Proposal: New construction
	CPUC Staff Assessment: New construction.
	CPUC Staff Recommendation: Accept.
<p><b>Project Baseline Technology</b> (in situ equipment, Title 24 (specify year), other code or other efficiency level (specify), industry standard practice - ISP)</p>	IOU Proposal: In situ as a proxy for an ISP base line represented by the normalized energy consumption of Shop A.
	CPUC Staff Assessment: Additional research is required to establish ISP and may require adjustments to the empirically developed proposed baseline.
	CPUC Staff Recommendation: ISP Guidance requires opinions from multiple and independent subject matter experts. Only one SME, a senior representative from a selected supplier, provided market share information. Input from two additional independent SME's is required. The market share projects must demonstrate comparability by including descriptions of production volume, car type, emissions, and extent of project to confirm. ISP research is required for paint nozzles and design features minimizing the volume of material heated. The PA must follow the ISP Guidance document issued by CPUC Staff. The proposed ISP baseline must also meet emissions requirements at design levels of production.
<p><b>Project Cost Basis</b> (Full Incremental, or Both. Note: For early retirement projects, include RUL through EUL cost basis treatment)</p>	IOU Proposal: Incremental.
	CPUC Staff Assessment: Incremental.
	CPUC Staff Recommendation: Provide incremental installed cost, supported by equipment and labor cost quotes for the baseline and proposed technologies.
<p><b>RUL</b> (required for early retirement projects only, otherwise N/A)</p>	IOU Proposal: N/A
	CPUC Staff Assessment: N/A
	CPUC Staff Recommendation: N/A
<p><b>EUL</b> (for each measure)</p>	IOU Proposal: None provided.
	CPUC Staff Assessment: TBD. Scope of project unknown, pending ISP determination.

Reviewed Parameter	Analysis
	CPUC Staff Recommendation: IOU to provide EUL with justification.
<b>Savings Assumptions</b>	IOU Proposal: Assume production levels in post installation case.
	CPUC Staff Assessment: TBD.
	CPUC Staff Recommendation: TBD
<b>Calculation Methods/Tool review</b>	IOU Proposal: Baseline meter Shop A as a proxy for ISP with an algorithm to separate the base load and production variable components. Whole operation metering of the new paint shop with savings calculated as the product of the difference in baseline and installed unit savings and production levels, plus the difference in base load.
	CPUC Staff Assessment: TBD. The determination of the baseline via ISP research may alter the savings approach. It is unlikely that metered from Shop A will provide a credible performance baseline.
	CPUC Staff Recommendation: TBD
<b>Pre- or Post-Installation M&amp;V Plan</b>	IOU Proposal: Meter Shop A (pre) and Shop B (post) all services including electricity, natural gas, and compressed air services to the building.
	CPUC Staff Assessment: TBD. The determination of the baseline via ISP research may alter the M&V approach.
	CPUC Staff Recommendation: TBD
<b>Net-to-Gross Screening</b>	IOU Proposal: Not addressed.
	CPUC Staff Assessment: TBD in an interview conducted by the EAR Team.
	CPUC Staff Recommendation: Ex ante team may conduct an NTGR interview.

**Table 1-3 Energy Savings Summary, Project Costs & Incentive**

Description	IOU Ex Ante Claim	CPUC Staff Recommendations
First Year kWh Savings	786,736**	TBD
First Year Peak kW Savings	-779**	TBD
First Year Therms Savings	1,652,124**	TBD
kWh Savings (RUL Period)	N/A	N/A
Peak kW Savings (RUL Period)	N/A	N/A
Therms Impact (RUL Period)	N/A	N/A
kWh Savings (RUL thru EUL Period)	786,736**	TBD
Peak kW Savings (RUL thru EUL Period)	-779**	TBD
Therms Savings (RUL thru EUL Period)	1,652,124**	TBD
Annual Non-IOU Fuel Impact (RUL Period)	N/A	N/A
Annual Non-IOU Fuel Impact (RUL thru EUL Period)	N/A	N/A
Project Costs for Baseline #1 (RUL or EUL)	\$13,000,000	TBD, pending data request response.
Project Costs for Baseline #2 (EUL minus RUL period)	N/A	N/A
Project Incentive Amount	\$1,637,140	TBD

\*\* 3P implementer: (786,736 kWh, 1,652,124 therms with a peak demand reduction of -779 kW)

\*\* PA Review checklist: (9,540,000 kWh, 775,000 therms with a peak demand reduction of 300 kW)