



# Online Data Reporting Systems

## Evaluation Report

**Prepared for:**

California Investor-Owned Utilities:

Pacific Gas and Electric  
Southern California Edison  
Southern California Gas  
San Diego Gas & Electric

**Prepared by:**

**Emerald Cities Collaborative**

Authors:

Dr. Denise Fairchild  
Veronica Soto  
Avni Jamdar



## **ACKNOWLEDGEMENTS**

We would like to thank the California Investor Owned Utilities, and in particular the Workforce Education & Training Project Coordination Group, the Evaluation, Measurement and Verification team and ESA staff for their guidance and input throughout the project planning and execution.



## Online Data Reporting Systems Evaluation Report

### TABLE OF CONTENTS

1.0	EXECUTIVE SUMMARY .....	1
2.0	PROJECT BACKGROUND.....	10
3.0	EVALUATION METHODOLOGY .....	10
4.0	ONLINE DATA REPORTING SYSTEMS FIRM BACKGROUND.....	13
5.0	ONLINE DATA REPORTING SYSTEM EVALUATION FRAMEWORK COMPARISON....	17
6.0	CONCLUSIONS.....	31



## LIST OF TABLES

- Table 1. Summary of Elation and LCP Tracker Features by Evaluation Criteria for each Data Element Systems Capabilities, Data Upload & Integration, and Reporting
- Table 2. Sources for Each Data Element and Measure
- Table 3. Comparison of Annual Fees, Development and Set-up Fees and Training Costs for Elation and LCPtracker
- Table 4. Overview of Project Scope/Activities and Deliverables
- Table 5. Summary of Elation and LCPtracker Company Background
- Table 6. Comparison of Annual Fees, Development and Set Up Fees and Training Costs for Elation and LCPtracker
- Table 7. Elation System Capabilities to Incorporate Key Data Elements and Measures
- Table 8. Elation Data Upload & Integration Features for Key Data Elements and Measures
- Table 9. Elation Data Reporting Features by Major Data Elements and Measures
- Table 10. Elation Training Services and Costs
- Table 11. Elation Technical Support by Type of Service
- Table 12. LCPtracker System Capabilities to Incorporate Major Data Elements and Measures
- Table 13. LCPtracker Data Upload and Integration Features for Major Data Elements and Measures
- Table 14. LCPtracker Data Reporting Features for Major Data Elements and Measures
- Table 15. LCPtracker Training Services and Costs
- Table 16. LCPtracker Technical Support by Type of Service
- Table 17. LCPtracker Cost Structure by Project Volume

## 1. EXECUTIVE SUMMARY

This report presents key findings on the functions and capabilities of two on-line data reporting systems (ODRS)—Elation and LCPtracker—to help California’s Investor Owned Utilities (IOUs)<sup>1</sup> better understand how these systems collect and report workforce data. The California IOU Workforce Education and Training (WE&T) Program specified the following goals for the study<sup>2</sup>:

1. Compare the major features of Elation and LCPtracker systems
2. Understand the administrative burden for IOUs to consider on-line data systems

Two prior studies<sup>3</sup> identified high level benefits and challenges<sup>4</sup> of adopting ODRS. This more limited investigation provides additional background information for the IOUs to better understand the technical aspects of adopting ODRS. The project scope includes a review of project background materials<sup>5</sup>, review of vendor materials, interviews with company executives of the two systems under evaluation, systems testing, and regular input and feedback from representatives of the IOUs WE&T Working Group.

Project Scope:

This report, commissioned by the California IOUs statewide WE&T Program, details and compares the ODRS functionalities in nine key areas:

1. System Configuration and Capabilities
2. Data Upload and Integration
3. Reporting
4. Training
5. Technical Support
6. Privacy and Security
7. System Reliability
8. Ease of Use<sup>6</sup>
9. Cost

Moreover, the California IOUs statewide Workforce Education and Training (WE&T) Program specifically sought information on the systems’ capabilities to collect data and report the following information:

---

<sup>1</sup> Southern California Edison, San Diego Gas and Electric, Southern California Gas Company, Pacific Gas and Electric Company

<sup>2</sup> As per *Revised Project Plan for WE&T WORK SCOPE-C by Emerald Cities Collaborative*, executed January 2016

<sup>3</sup> Zabin, Carol, et.al. (2014). *Workforce Issues and Energy Efficiency Programs. A Guidance Plan for California Utilities*. Donald Vial Center for Employment in the Green Economy and the Institute for Labor and Employment at University of California, Berkeley; and Opinion Dynamics. (2015). *FY2013-2014 California Statewide Workforce Education and Training Workforce Conditions Data Investigation Report*. Prepared for the California Public Utilities Energy Division.

<sup>4</sup> Both DVC and ODC studies cited above suggest that having additional workforce data could help improve our understanding of relevant worker skills, energy savings, customer satisfaction, worker satisfaction, job quality related to positions that support energy efficiency programs administered by the IOUs. ODC specifically suggests, however, that the burden of collecting this data may not be warranted and both reports suggest a more detailed understanding of how these systems work.

<sup>5</sup> See footnote 2

<sup>6</sup> Ease of Use findings presented in this report are from the point of view of the two vendors, LCPtracker and Elation

- Job quality
  - Compensation type;
  - Hourly wage rate;
  - Average hours worked per week;
  - Benefits;
  - CARE eligible employees;
- Workforce Diversity
  - Demographics: Race/ethnicity, gender, job type, socio-economic;
  - Veteran Status;
  - Low-income zip code of residence;
- Career Ladders
  - Career trajectory over time;
  - Apprentices hired and retained;
- Training Investments
  - Training completions;
  - Hiring rates from training programs;
  - Turnover rates;
  - Retention rates;
  - Worker certifications/license
- Quality of Work
  - Inspection success/failure rates;
  - Call-backs;
  - Other measures of quality (energy savings, safety);
- Contractor Qualifications
  - Contract terms;
  - Inspection success/failure rate;
  - Contractor certifications/license;
  - Contractor investments in employee training.

#### Report Limitations:

This investigation, because of its limited scope to the functions, capacities, services and costs of Elation and LCPtracker, requires additional research to assess feasibility. User surveys and assessments were not included in the scope of work. It was not possible, therefore, to determine the data collection objectives, proposed uses of the data by the WE&T team, their respective IOUs or any specific program needs. The study also did not assess existing data collection methods and systems within the IOUs nor IOU contractors' knowledge, experience and capacities to adopt ODRS. The feasibility study therefore, does not provide a definitive assessment of the value of adopting ODRS into the operations of the IOUs, its cost-benefits or the administrative burdens to implement by either the contractor or IOU.

#### General Findings:

The key findings indicate that both ODRS reviewed offer digital platforms that demonstrate similar capabilities with respect to: 1) collecting and reporting demographic, wage and occupational data; 2)

maintaining industry and government standards for data security; 3) ensuring system reliability demonstrating little or no “down time” since in operation); and 4) offering capacity for systems integration/interface with enterprise systems.

The full benefits of both systems must be weighed against the implementation and administrative costs and burdens on the users - IOUs and contractors. This assessment was not included in the project scope but areas needed for further investigation are identified throughout the report, including the costs of system design, staffing and management, data quality control and assurances and on-going training. These costs may differ for each utility as well as the contractors with different firm experience and capacities.

The ODC study<sup>7</sup> provides the differential impacts of adopting ODRS systems:

- Electronic payroll tracking is the best method to acquire the demographic and wage information requested but investment is not justifiable for all energy efficiency programs
- Data intensive effort not warranted at this time for programs similar in design to the Home Upgrade and Non-Residential Deemed and Custom Core Programs
- Wait until ESA has a good model to follow before requiring other programs to execute a comprehensive approach
- Consider the learnings from this study when determining how to best collect demographic information from ESA contractors or other program contractors in the future
- Require indirect contracting relationship energy efficiency programs to collect and submit select information at this time
- The IOUs need help to standardize the definition of work quality across the IOUs and the coding of inspection failures
- An administrative challenge amongst the IOUs needs to be addressed for WE&T

The two ODRS differ more substantially, in three key areas: 1) data collection and reporting, especially the capacity to collect and report quality of work and contractor qualifications data<sup>8</sup> which is strongest with Elation, 2) LCPtracker provides more customer technical support in terms of their reported technical support response times and services and 3) LCPtracker provides more training opportunities and options with respect to the number, types and frequency of training. Elation, however, indicated its willingness to customize training for each IOU to limit long-term costs and ensure consistent training.

---

<sup>7</sup> Opinion Dynamics. (2015). FY2013-2014 California Statewide Workforce Education and Training Workforce Conditions Data Investigation Report.

<sup>8</sup> Job quality data includes: compensation type; hourly wage rate; average hours worked per week; benefits, CARE eligible employees. Quality of Work data includes: contract terms, inspection success/failure rates, contractor certificates/license, contractor investments in trainings etc.

**Table 1. Summary of Elation and LCP Tracker Features by Evaluation Criteria for each Data Element**  
Systems Capabilities, Data Upload & Integration, and Reporting

	SYSTEM CONFIGURATION & CAPABILITIES		DATA UPLOAD/INTEGRATION		REPORTING	
	Elation	LCPtracker	Elation	LCPtracker	Elation	LCPtracker
<b>KEY DATA ELEMENTS/MEASURES</b>						
<b>Job Quality</b> Compensation Type Hourly wage rate Avg hours worked per week Benefits CARE eligible employees	Yes	Yes	Yes	Yes	Yes	Yes
<b>Workforce Diversity</b> Demographic (race/ethnic) Demographic (gender) Demographic by job type Demographic by soc/econ Veteran status Low-income zip code	Yes	Yes	Yes	Yes	Yes	Yes
<b>Career Ladders</b> Career trajectory over time Apprentices hired Apprentices retained	Yes	Yes	Yes	Yes	Yes	Yes
<b>Training Investments</b> Training completions Hiring rates from training programs Turnover rates Retention rates Worker certifications/license	Yes	Incomplete**	Yes	Incomplete**	Yes	Incomplete**
<b>Quality of Work</b> Inspection success/failure rates Call backs Other measures of quality (energy savings, safety)	Yes	No	N/A	N/A	No*	No*
<b>Contractor Qualifications</b> Contract terms Inspection success/failure rate Contractor certs/license Contractor investments in employee training	Yes	No	N/A	N/A	No*	No*

\*Not currently available. Requires customized report development.

\*\*Has most but not all the capabilities for key data element.

N/A- Current capability not available.

Data Sources: Interviews and webinar system demonstrations provided by company presidents of Elation Systems and LCPtracker.

#### Data Collection and Reporting:

The two systems examined differ with respect to the process of data collection and reporting. Elation uses a more intuitive structure to collect and report data that enables users to “click and drop” data sets to submit payroll reports. Additionally, the Elations system facilitates the linking of multiple modules to generate a comprehensive report that illustrates worker and contractor employer relationships and specific project contract values. LCPtracker, alternatively, provides structured data



collection and reporting formats; thus a more standardized and customized format or traditional method for collecting and reporting data.

In addition, as illustrated in Table 1, LCPtracker is currently not able to collect or report on quality of work or contractor qualifications data<sup>9</sup>, although they are able to develop a customized module – known as Workforce Manager—to offer this capability at an additional cost. Elation, on the other hand, developed their version of this module –known as TradesForce—to track this data, including career paths over time, certifications over time, and training data that can be completely integrated with other built-in reports on contractors and economic inclusion to provide a more granular look at workforce inclusion, standards and quality by project or more broadly by region. The Elation TradesForce module, while developed, has not yet been implemented. In essence, both systems use different names –Workforce Manager and TradesForce—for modules that can collect deeper levels of information about job quality, career ladders, and training investments, while expanding its system’s contractor and contract profiles and/or modules to collect and report on quality of work and contractor qualifications. Elation’s module is available, while LCPtracker can develop this module, requiring additional cost and time. LCPtracker anticipates the completion and availability of Workforce Manager by the end of December 2016.

#### Data Reliability:

The value of ODRS relies on the quality of the input data to generate quality information and knowledge. Table 2 profiles what is required to collect and verify data, and overall issues of data reliability and, to some extent, ease of use. In general, workforce data are self-reported by employees on his/her employment application. Employers then input data from employee applications into the system. Data verification varies by data elements and measures and, in some instances, it may not be possible or too costly and time-consuming to verify employee data. In general, however, there is a direct correlation between increased data reliability and increased time and costs devoted to data verification and quality control. The cost-benefit of using an ODRS may be further offset, however, when compared with the cost of collecting this data manually.

---

<sup>9</sup> *ibid.*

**Table 2. Sources for Each Data Element and Measure**

<b>DATA ELEMENT</b>	<b>MEASURE</b>	<b>DATA SOURCE</b>	<b>INPUT METHOD/ RESPONSIBILITY</b>	<b>VERIFICATION METHODS</b>	<b>ISSUES/ CHALLENGES*</b>
<b>Job Quality</b>	Compensation Type	Employer	Certified Payroll or Commercial Payroll Service	Certified Payroll	Not all contractors submit certified payroll or retain a commercial payroll service. Manual processes may increase inaccuracies.
	Wages	Employer	Certified Payroll or Commercial Payroll Service	Certified Payroll	Not all contractors submit certified payroll or retain a commercial payroll service. Manual processes may increase inaccuracies.
	Hours Worked	Employer	Certified Payroll or Commercial Payroll Service	Certified Payroll	Not all contractors submit certified payroll or retain a commercial payroll service. Manual processes may increase inaccuracies.
	Benefits	Employer	Certified Payroll or Commercial Payroll Service	Certified Payroll	Not all contractors submit certified payroll or retain a commercial payroll service. Manual processes may increase inaccuracies.
	CARE Eligible Employees	Employer IOU	Employer input into ODRS	IOU	Requires coordination and data exchange between Employer and IOU to determine CARE eligible employees. Employee may not submit information to determine eligibility.
<b>Workforce Diversity</b>	Race/Gender	Employee	Employer input into ODRS	Birth Certificate	Employer may need training to use ODRS.
	Job Type	Employer	Employer input into ODRS	Certified Payroll	Not all contractors submit certified payroll. Manual processes may increase inaccuracies. Employer may need training to use ODRS.
	Social/Economic	Employee	Employer input into ODRS	Employer Form	Employer may need training to use ODRS. Existing employment form may not capture all data elements to determine employees' social/economic factors; employer may have to establish new process to collect information.
	Veteran Status	Employee	Employer input into ODRS	DD-214	Employer may need training to use ODRS. If not already collected, employer will need to obtain DD-214 from employee to verify status.
	Low Income Zip Code	Employee	Employer input into ODRS	Driver's License	Employer may need training to use ODRS. Low-income zip codes need to be pre-determined.

**Table 2. Sources for Each Data Element and Measure (continued)**

DATA ELEMENT	MEASURE	DATA SOURCE	INPUT METHOD/ RESPONSIBILITY	VERIFICATION METHODS	ISSUES/ CHALLENGES*
Career Ladders	Career Trajectory	Employer	Employer input into ODRS	Certified Payroll or Employee Promotion Records	Employer may need training to use ODRS; and may not have adequate documentation of employee promotions.
	Apprentice Hired	Employer	Employer input into ODRS	Certified Payroll, Trust Fund payments, and CA Dept of Apprenticeship Standards	Employer may need training to use ODRS. Employee may not be registered apprentice.
	Apprentice Retained	Employer	Employer input into ODRS	Certified Payroll, Trust Fund payments, and CA Dept of Apprenticeship Standards	Employer may need training to use ODRS. Employee may not be registered apprentice.
Training Investments	Training Completions	Employee	Employer input into ODRS	Diploma Degree Certificate	Employer may need training to use ODRS; and may have to collect documentation not previously requested from employee.
	Hiring Rates from Training Programs	Employee Employer	Employer input into ODRS	Degree Certificate	Employer may need training to use ODRS; and may have to collect documentation not previously requested from employee.
	Turnover Rates	Employer	Certified Payroll or Commercial Payroll Service	Certified Payroll	Not all contractors submit certified payroll or retain a commercial payroll service. Manual processes may increase inaccuracies.
	Retention Rates	Employer	Certified Payroll or Commercial Payroll Service	Certified Payroll	Not all contractors submit certified payroll or retain a commercial payroll service. Manual processes may increase inaccuracies.
	License Certification	Employee	Employer input into ODRS	Diploma Degree Certificate License Registry	Employer may need training to use ODRS; and may have to collect documentation not previously requested from employee.
Quality of Work	Call-backs	IOU Project Reports	IOU integration into ODRS	Unknown	IOU may not currently collect or track this data in a manner that may be readily integrated with an ODRS.
	Inspection Success/Fail	IOU Project Reports	IOU integration into ODRS	Unknown	IOU may not currently collect or track this data in a manner that may be readily integrated with an ODRS.

**Table 2. Sources for Each Data Element and Measure (continued)**

	Call Backs	Customer service calls.	IOU integration into ODRS	Unknown	IOU may not currently collect or track this data in a manner that may be readily integrated with an ODRS.
	Other Measure of Quality	TBD by IOU	IOU integration into ODRS TBD	Unknown	Unknown

\* Issues and challenges are not from direct research but from Emerald Cities’ direct ODRS implementation experience.

Training and Technical Support:

Ease of use and the administrative burden of implementing and using ODRS for vendors and utilities is a major factor in assessing the viability of implementing ODRS for the various energy efficiency programs. This report did not investigate the current capacity and needs of these target clients. It did assess the training and technical assistance services and infrastructure available for both systems to support implementation and utilization.

In general, LCPtracker self-reports a 97% live response rate –caller has access to a person to talk to— for its technical support services. Elation self-reports a 30% voicemail response during peak hours, with 4-hour response time. Typical calls for technical support may include how to certify a payroll report or how to submit hours for a worker performing two distinct trades on the same project. While these inquiries may seem mundane, a user’s inability to secure timely guidance may force them to delay the timely submission of a certified payroll or to incorrectly classify a worker that may have dire compliance repercussions in the future.

LCPtracker has a greater number of scheduled webinars for contractor and system administrator training but also an established \$250.00 fee per custom webinar training session. Elation has a lower number of scheduled training sessions and their fee is \$300.00 per custom session, but it has offered to record a custom training session for each IOU for future download by contractors and system administrator users. Elation’s training approach may limit long-term training costs by providing IOUs in-house access to training videos for new users and continuing education purposes and to ensure consistency in learning and use of the system.

Costs:

Table 3 provides a cost comparison of the two systems by key factors, including costs for systems license, training, and set-up fees. The set-up fee is a one-time charge that includes 1) Database configuration (with numerous departments for subsidiaries); 2) One prevailing wage data load (up to 8 hours); 3) Administrator onsite training; and 4) On-going, no charge, web-based administrative and contractor training sessions. These are projected costs per IOU based on \$200M in annual contract volume, no custom training for contractors, and one custom administrator training session. It is important to note that the administrative cost to implement ODRS for either the contractor or IOU could not be ascertained through the scope of this study.

**Table 3. Comparison of Annual Fees, Development and Set-up Fees and Training Costs for Elation and LCPtracker**

ODRS	Annual Cost by Contract Volume	Cost for Workforce Quality Module	Contractor Training	Administrator Training	Set-up Fees	Contractor Administrative Implementation Cost	IOU Administrative Implementation Cost	Total Annual Cost
Elation	\$40,000	\$0	\$0	\$300.00	\$0	N/A	N/A	\$40,300.00
LCPtracker	\$27,000	\$40k years 1-2 \$30k years 3-5	\$0	\$0	\$3,950	N/A	N/A	\$70,950.00*

Data Source(s): Vendor cost proposals, ECC interviews with firm principals. \*Represents cost for year-one implementation. N/A: Not Available.

## 2. PROJECT BACKGROUND

The report provides IOU managers with information to assess the capabilities of Elation and LCPTracker - ODRS as a tool for collecting and reporting workforce information.

The study goals identified by the IOUs were<sup>10</sup>:

1. Compare the major features of Elations and LCPtracker
2. Understand the administrative burden for IOUs to implement ODRS

The specific tasks of this project as identified in the consultant contract include:

**Table 4. Overview of Project Scope/Activities and Deliverables**

Title	Project Scope & Activities	Deliverables
Analysis of Two Systems	<p><b>Elation and LCP Tracking System Assessment</b></p> <ul style="list-style-type: none"> <li>○ Review IOUs preliminary assessment</li> <li>○ Review relevant organizational literature</li> <li>○ Identify data requirements for IOU's Inclusion program (e.g. wages, geography, training, etc.), limited to the six data requirements outlined above</li> <li>○ Develop draft data system evaluation criteria. (e.g., primary and secondary functionality, cost, training and tech support, fees, types of reports, security, etc.</li> </ul> <ul style="list-style-type: none"> <li>• Prepare Interim Findings Memo,</li> <li>• Prepare Interim Findings Presentation to the IOUs</li> <li>• Prepare Final Report</li> </ul>	<p><b>(1)</b> Interim Findings Memo</p> <p><b>(2)</b> Host IOUs presentation and prepare PowerPoint</p> <p><b>(3)</b> Final report</p>

Data Source: WE&T Contract scope of work (January 13, 2016)

## 3. EVALUATION METHODOLOGY

The report compiles primary and secondary data to present a thorough analysis of ODRS Elation and LCPtracker for the IOUs WE&T Program. Specific tasks included:

- 1) Review of WE&T background materials and reports
- 2) Developed a capabilities evaluation matrix and criteria with WE&T members to assess system attributes for ease of comparison
- 3) Vendor meetings/interviews with executives of Elation and LCPtracker
- 4) Review of system capabilities, integration flexibility, reporting, and known user limitations
- 5) Regular meetings - in-person and telephone - and input with the WE&T working group

While the consultant team brings extensive experience in monitoring, reporting and compliance, and the support and use of Online Data Reporting Systems, specifically, LCPtracker, on large public infrastructure projects to inform some of the findings, the scope of work for this effort relied principally on reviews of the various modules of the two systems. The research did not include objective primary data collection with users (at relevant or impacted organizations) OR cost and benefit analyses based on the actual implementation of these systems. In other words, business

<sup>10</sup> As per Revised Project Plan for WE&T WORK SCOPE-C by Emerald Cities Collaborative, executed January 2016

costs/benefits to contractors, employees, or the utilities were not examined as part of this effort, nor was an examination of logistical or practical issues associated with modifying business practices in order to implement and use the systems given their current functionality. Such considerations were outside of the scope of the current project.

## **Evaluation Criteria**

The ODRS evaluation criteria were determined by WE&T program managers, which included the following proposed data elements, measures and systems capabilities:

### ***Data Elements/Measures***

The data variables<sup>11</sup> considered included:

- **Job quality**
  - Compensation type;
  - Hourly wage rate;
  - Average hours worked per week;
  - Benefits;
  - CARE eligible employees;
- **Workforce Diversity**
  - Demographics: Race/ethnicity, gender, job type, socio-economic;
  - Veteran Status;
  - Low-income zip code of residence;
- **Career Ladders**
  - Career trajectory over time;
  - Apprentices hired and retained;
- **Training Investments**
  - Training completions;
  - Hiring rates from training programs;
  - Turnover rates;
  - Retention rates;
  - Worker certifications/license
- **Quality of Work**
  - Inspection success/failure rates;
  - Call-backs;
  - Other measures of quality (energy savings, safety);
- **Contractor Qualifications**
  - Contract terms;
  - Inspection success/failure rate;
  - Contractor certifications/license;
  - Contractor investments in employee training.

---

<sup>11</sup> The variables examined were selected in response to considerations suggested on Page 141, Zabin, Carol, et.al. (2014). *Workforce Issues and Energy Efficiency Programs. A Guidance Plan for California Utilities*. Donald Vial Center for Employment in the Green Economy and the Institute for Labor and Employment at University of California, Berkeley

## ***System Specifications***

In order to evaluate each online data reporting systems' capabilities and its potential use by the IOUs and its contractors, the following major system attributes were evaluated:

- System Configuration and Capabilities
- Data Upload and Integration
- Reporting
- Training
- Technical Support
- Privacy and Security
- System Reliability
- Ease of Use
- Cost

## ***Limitations of Study***

As noted above, this analysis was limited to review and comparison of the functions, capacities, services and costs of Elation and LCPtracker. The report does not provide a definitive assessment of the value of adopting ODRS into the operations of the IOUs, its cost-benefits or burdens, or to fully assess which of the two Systems best meet the needs of the IOUs. Such an analysis would require additional inquiry some of which might include:

- Identifying the goals/objectives of the ODRS, as well as the IOUs unique and common data reporting needs and priorities. This study identified a fairly extensive set of data that profile workforce demographics, wages, certifications, training and other measures of worker and job quality that may or may not be required for IOU purposes.
- Identifying the status of the existing data collection and reporting methods and systems for each of the IOUs and the related costs and challenges.
- Identifying the viability of the data inputs including detailed analyses of the reliability and the comprehensiveness of each of the potential data fields of interest.
- Identifying the frequency of desired reporting.
- Estimating the number of projects and the volume or value of energy efficiency contracts to estimate the annual cost of implementing each of the ODRS reviewed in this study.
- Identifying the number of potential vendors that will be using the system, as well as their capacities and perceived challenges of using ODRS.
- Interviewing existing vendors of ODRS to estimate level of effort, costs, burdens and advantages.



- Identifying the system specifications of most significance to the IOUs (e.g., customer support, systems integration and customization, or data reports) to help identify which system best meet the priority needs.
- Identifying the number of divisions/units involved in ODRS administration/management which will help determine the number of users, technical and training support requirements; and
- Finalizing the system specifications; that is, defining what the system needs to do to achieve IOU goals and objectives.
- Systematic analyses of additional issues associated with implementation such as confidentiality and privacy issues, impacts on contractors business models and payment structures, legal and human resource related council, as well as IT and data base compatibility.

#### 4. ONLINE DATA REPORTING SYSTEMS FIRM BACKGROUND

This report reviews two ODRS software applications--Elation Systems, Inc.

(<https://www.elationsys.com/>) and LCPtracker, Inc. ([www.lcptracker.com/](http://www.lcptracker.com/))-- that offer ODRS capabilities relevant to the criteria established for this assessment. A background of each firm is briefly provided here. This is followed by a more detailed assessment of each firm’s capabilities to meet the data and reporting needs of the IOUs.

**Table 5. Summary of Elation and LCPtracker Company Background**

	<b>Competitive Analysis</b>	<b>LCPtracker</b>	<b>ELATION</b>
<b>TYPE OF PRODUCT</b>	Local Hiring / Workforce	YES	YES
<b>COMPANY INFO</b>	Parent Company	None but strategic partnership with B2G Now	None
	Product Inception	2001	(2004
	Originally Designed For	School systems to handle labor compliance	Diversity & labor compliance for gov’t contracts. Evolution of client needs led to building in local workforce hiring
	Target Customer	Cities, counties, and general contractors	Primarily government agencies. Also private corporations
	Number of Customers	Around 500	Around 200
	Number of Employees	55	30
	Training/Support for Client	Training and support Included	Training and support Included

	Training/Support for Contractors	Same as client	Same as client
	Pricing Structure	Annual license, tiered pricing based on \$ spend	Based on # of projects & modules (ranging from \$20 - \$500, depending on volume)

Data Sources: <https://www.elationsys.com/elationsys/AboutUs.aspx>  
<http://www.lcptracker.com/about/company>,  
<http://www.lcptrackerblog.com/wordpress/>

Table 6 summarizes the projected costs per IOU based on \$200M in annual contract volume; no custom training for contractors; one custom administrator training session; and set-up fees if any. Only LCPtracker requires a set-up fee. The set-up fee is a one-time charge that includes 1) Database configuration (with numerous departments for subsidiaries); 2) One prevailing wage data load (up to 8 hours); 3) Administrator onsite training; and 4) On-going, no charge, web-based administrative and contractor training sessions. The administrative cost to implement ODRS by either the contractor or IOU is not available. Additional research is required to determine the administrative implementation burden and cost.

**Table 6. Comparison of Annual Fees, Development and Set Up Fees and Training Costs for Elation and LCPtracker**

ODRS	Annual Cost by Contract Volume	Cost for Workforce Quality Module	Contractor Training	Administrator Training	Set-up Fees	Contractor Administrative Implementation Cost	IOU Administrative Implementation Cost	Total Annual Cost
Elation	\$40,000	\$0	\$0	\$300.00	\$0	N/A	N/A	\$40,300.00
LCPtracker	\$27,000	\$40k years 1-2 \$30k years 3-5	\$0	\$0	\$3,950	N/A	N/A	\$70,950.00*

Data Source(s): Vendor cost proposals, ECC interviews with firm principals. \*Represents cost for year-one implementation. N/A: Not Available.

The above costs are in addition to the IOUs administrative costs currently unknown that are required to implement an ODRS within a large organization with a large pool of contractors with differing levels of technical knowledge and staff. Comparable implementation of an ODRS at a public agency with more than one billion dollars in annual contract volume would require at minimum one to two months depending on other competing agency priorities. The implementation would include:

- Time to coordinate internal IT support;
- Modifying contract specifications to require reporting of all contractors;
- Development and upload of required forms; modifying existing policies and procedures;
- Identifying all responsible parties within the organization and creating user profiles;
- Coordinating training for all system administrators and access parameters;
- Establishing validation settings in system to ensure integrity and completeness of data collection and reporting;
- Developing custom reports;
- Notification to all contractors of upcoming system use requirement;

- Coordinating contractor training;
- Updating website as required;
- Assigning or dedicating a person or persons as point of contact to contractor inquiries pertaining to reporting requirement.

Similarly, contractors using an ODRS for the first time would also incur administrative costs, including the time devoted to staff training, IT support to download payroll data from commercial payroll system, surveying existing employees and modifying employee data collection forms to secure all job quality, workforce diversity, and career ladders data required by the system. Additionally, contractors would be required to maintain records of employee-specific training investments.

## **Elation Systems**

Founded in 2004, Elation Systems, Inc. (“Elation”) is a Pleasanton-based California Corporation. It is an information technology firm that provides web-based compliance management systems for government agencies, private businesses, and contractors.

Elation provides eight applications for a variety of public agencies, businesses and contractors to accomplish Labor Compliance; HUD Section 3 reporting; TradesForce; DBE, MWBE and SBE utilization; Certification; OCIP/CCIP reporting; Project Calendaring; and Invoice Automation. A description of the applications directly related to Elation’s capabilities for this report are as follows:

### *Davis-Bacon, Prevailing Wage, and Labor Compliance*

Automates the tracking, monitoring, and enforcement of both federal Davis-Bacon and local prevailing wage requirements on applicable projects. The system automates the certified payroll data collection and prevailing wage certifications. The system also assists in monitoring and enforcing local workforce utilization, development, and local hiring regulations, and facilitates workforce data reporting.

### *Section 3 Reporting*

The Section 3 reporting module provides access to a secure, web-based Section 3 reporting and monitoring process for developers, contractors, subcontractors, and housing authorities, redevelopment agencies, and the Department of Housing and Urban Development (HUD). The module reduces the reporting burden set forth by federal Section 3 reporting requirements.

### *Business (DBE, MWBE, and SBE) Utilization*

The DBE, MWBE, and SBE reporting module helps automate the reporting and monitoring of federal, state, and local municipalities’ business utilization programs through use of real-time data on contracts, purchase orders, service agreements, and payment transactions.

### *TradesForce*

The TradesForce tracking and reporting module allows government agencies, private entities or community based organizations to track and report on trainee demographic profile, training certificates, training completions, and transition to job. TradesForce may be used with other Elation modules to ascertain wage, apprentice, employer data, and career trajectory over time.

## **LCPtracker**

Founded in 2001, LCPtracker, Inc. began the development of a Software as a Service (SaaS) solution for prevailing wage compliance. By 2006, more than one hundred K-12 schools and universities, cities and transit agencies began using the system. Clients now include 20 of the largest 50 cities in the country, seven statewide Department of Transportations, and large construction companies. LCPtracker manages over \$80 billion in project value per year with projects added daily. LCPtracker provides three service options: LCPtracker Pro, LCPcertified, and Daily Reporter.

### *LCPtracker Pro*

LCPtracker Pro is a cloud-based, prevailing wage and workforce compliance/management application for agencies and prime contractors working on construction projects that require Certified Payroll Reports and may need to track worker information for workforce reporting. The software application has been used by over 250,000 contractors to submit certified payroll reports.

The LCPtracker validation system checks payrolls for local, state, and federal Davis-Bacon wage and labor compliance by flagging any error or omission discrepancies the contractor may have on a report. The software also allows for payroll input through an interface to commercial payroll companies or through a three-step manual reporting process. Administrators can view, approve or reject payrolls and provide immediate feedback to contractors through the system.

### *LCPcertified*

LCPcertified is a cloud-based certified payroll module used by prime or sub-contractors to submit certified payroll reports to an agency or contract authority.

LCPcertified integrates with commercial payroll systems to produce certified payroll reports. Payroll interfaces support the most widely used payroll solution to ensure that contractors can easily upload their payroll data. For contractors in California, LCPcertified produces the XML file that can be uploaded to the Department of Industrial Relations for qualifying public works projects.

### *Daily Reporter*

LCPtracker's Daily Reporter is a software module that allows submittal of electronic daily reports from the construction site. Foremen can submit daily reports using their mobile devices. Daily Reporter, combined with LCPtracker Pro, compares each foreman's daily report to the Certified Payroll Report submitted by a contractor. If there are any discrepancies or errors an immediate notice is created and the issue must be corrected. Individual subcontractor reports are automatically rolled up to an integrated master report.

## **5. ONLINE DATA REPORTING SYSTEM EVALUATION FRAMEWORK COMPARISON**

### **► Elation System**

## System Configuration & Capabilities

Elation possesses the existing capabilities to track, monitor and report all the key data elements shown in Table 7, but will require customized configuration. There is no cost for customized configuration, if the same configuration is agreed upon and used by all potential IOU owners. Additional costs apply if there are distinct data elements, reports, etc. required.

Elation contains existing validation settings to ensure accuracy and data integrity, however, new validations may be established upon custom configuration to meet IOU specific needs.

**Table 7. Elation System Capabilities to Incorporate Key Data Elements and Measures**

	SYSTEM CONFIGURATION/CAPABILITIES		
	Current System Capability (Y/N)	Additional Cost (\$) for Configuration, if any	Current Validation Settings Available (Describe)
<b>Job Quality</b>			
Compensation Type (hourly, salary or per unit)	Yes	System capabilities are currently in place to track, monitor and report these data points. There will be no cost for customized configuration if the same system configuration is used by all owner users. Additional costs apply if there are distinct data points, reports, etc. required. Programming costs are \$140.00 per hour.	System has existing validation settings, however, new validations may be established upon custom configuration.
Hourly wage rate	Yes		
Average hours worked per week by employee job type	Yes		
Benefits	Yes		
CARE Eligible Employees	Yes		
<b>Workforce Diversity/Disadvantaged Worker</b>			
Demographics (race/ethnicity)	Yes	Same as above.	Same as above.
Demographics (gender)	Yes		
Demographics by Job Type	Yes		
Demographics by social/economic status (homeless, recipient of public benefits, poverty, no high school diploma, etc.)	Yes		
Veteran status	Yes		
Low-income zip code	Yes		
<b>Career Ladders</b>			
Career Trajectory over time	Yes	Same as above.	Same as above.
Apprentices hired	Yes		
Apprentices retained	Yes		
<b>Training Investments</b>			
Training completions	Yes	Same as above.	Same as above.
Hiring rates from various training programs	Yes		
Turnover rates (Average years of employment in current position)	Yes		
Retention rates	Yes		
Worker certifications / Licenses	Yes		
<b>Quality of Work</b>			
Inspection success/failure rates	Yes	Same as above.	Same as above.
Call backs	Yes		
Other measures of quality (e.g., safety, energy savings)	Yes		
<b>Qualifications of Participating Contractors</b>			
Contract terms (subcontractor, competitive bid, direct award)	Yes	Same as above.	Same as above.
Inspection success/failure rates	Yes		
Contractor certifications / licenses	Yes		
Contractor investments in employee training (annual investment per worker, employee training program related to specific certifications/license)	Yes		
	Yes		

Data Source: Elation interview and webinar presentation.

## Data Upload/Integration

As illustrated in Table 8, Elation possesses the ability to upload worker and wage data from commercially available payroll systems, and vendor/contractor data from existing IOU databases. Any required upload interfaces are included in the configuration set-up.

**Table 8. Elation Data Upload & Integration Features for Key Data Elements and Measures**

	DATA UPLOAD/INTEGRATION			
	Current Ability to Upload Data from Commercial Payroll Systems (Y/N)	Additional Cost (\$) for Upload Interface, if any	Current Ability to Upload Vendor/ Contractor Data (Y/N)	Additional Cost (\$) for Upload Interface, if any
<b>Job Quality</b>				
Compensation Type (hourly, salary or per unit)	Yes	Included in configuration set-up.	Yes	May be included in configuration set-up, if required data resides in contractor's system.
Hourly wage rate	Yes			
Average hours worked per week by employee job type	Yes			
Benefits	Yes			
CARE Eligible Employees	Yes			
<b>Workforce Diversity/Disadvantaged Worker</b>				
Demographics (race/ethnicity)	Yes	Same as above.	Yes	Same as above.
Demographics (gender)	Yes			
Demographics by Job Type	Yes			
Demographics by social/economic status (homeless, recipient of public benefits, poverty, no high school diploma, etc.)	Yes			
Veteran status	Yes			
Low-income zip code	Yes			
<b>Career Ladders</b>				
Career Trajectory over time	Yes	Same as above.	Yes	Same as above.
Apprentices hired	Yes			
Apprentices retained	Yes			
<b>Training Investments</b>				
Training completions	N/A	Same as above.	Yes	Same as above.
Hiring rates from various training programs				
Turnover rates (Average years of employment in current position)	Yes			
Retention rates	Yes			
Worker certifications / Licenses	Yes			
<b>Quality of Work</b>				
Inspection success/failure rates	N/A	N/A	Yes	Included in configuration set-up.
Call backs			Yes	
Other measures of quality (e.g., safety, energy)			Yes	
<b>Qualifications of Participating Contractors</b>				
Contract terms (subcontractor, competitive bid, direct award)	N/A	N/A	Yes	Same as above.
Inspection success/failure rates			Yes	
Contractor certifications / licenses			Yes	
Contractor investments in employee training (annual investment per worker, employee training program related to specific certifications/license)				
			Yes	

Data Source: Elation interview and webinar presentation.

## Reports

Elation’s capabilities are currently in place to track, monitor and report all the key data elements. As illustrated in Table 9, custom reports may be designed during configuration in order to meet data reporting requirements. Any data limitations will be based on the quality and completeness of available data collected in the system via upload or data entry. The cost of custom reports may be included in the custom configuration, if the same reports are used by all the potential IOU owners. Additional costs apply if there are distinct data points and reports required.

**Table 9. Elation Data Reporting Features by Major Data Elements and Measures**

	REPORTS					
	Existing Report Available (Y/N)	Custom Report Required (Y/N)	Comments for Y/N Response, if any	Data Limitations (Describe)	Cost Included with License (Y/N)	Additional Cost (\$) Estimate, if any
<b>Job Quality</b>						
Compensation Type (hourly, salary or per unit)	Yes			Data limitations will be based on data collected in system.	Yes	System capabilities are currently in place to track, monitor and report these data points. There will be no cost for customized configuration if the same system configuration is used by all owner users. Additional costs apply if there are distinct data points, reports, etc. required. Programming costs are \$140.00 per hour.
Hourly wage rate	Yes					
Average hours worked per week by employee job type	Yes					
Benefits	Yes	No	No comments.			
CARE Eligible Employees	Yes					
<b>Workforce Diversity/Disadvantaged Worker</b>						
Demographics (race/ethnicity)	Yes			Same as above.	Yes	Same as above.
Demographics (gender)	Yes					
Demographics by Job Type	Yes					
Demographics by social/economic status (homeless, recipient of public benefits, poverty, no high school diploma, etc.)	Yes	No	No comments.			
Veteran status	Yes					
Low-income zip code	Yes					
<b>Career Ladders</b>						
Career Trajectory over time	Yes			Same as above.	Included in custom configuration set-up. Yes Yes	Same as above.
Apprentices hired	Yes	No	No comments.			
Apprentices retained	Yes					
<b>Training Investments</b>						
Training completions	Yes	Yes		Same as above.	Included in custom configuration set-up.	Same as above.
Hiring rates from various training programs	Yes	Yes				
Turnover rates (Average years of employment in current position)	Yes	Yes	No comments.			
Retention rates	Yes	Yes				
Worker certifications / Licenses	Yes	Yes				
<b>Quality of Work</b>						
Inspection success/failure rates	No	Yes	Custom report to be designed during configuration in order to meet data requirements.	Same as above.	Same as above.	Same as above.
Call backs	No	Yes				
Other measures of quality (e.g., safety, energy savings)	No	Yes				
<b>Qualifications of Participating Contractors</b>						
Contract terms (subcontractor, competitive bid, direct award)	No	Yes	Same as above.	Same as above.	Same as above.	Same as above.
Inspection success/failure rates	No	Yes				
Contractor certifications / licenses	No	Yes				
Contractor investments in employee training (annual investment per worker, employee training program related to specific certifications/license)	No	Yes				
	No	Yes				

Data Source: Elation interview and webinar presentation.

## Training

As illustrated in Table 10, Elation provides training for all users through scheduled webinar training sessions and downloadable training materials. While there is no cost for contractors to participate in scheduled webinar training sessions, there is a cost if the training is specific to potential IOU owners but that cost would be borne by potential IOU owners. Elation will conduct owner specific training sessions, record session and post on website for unlimited contractor retrieval and owner use. The standard cost is \$300 per session and each session may include up to 100 participants.

**Table 10. Elation Training Services and Costs**

<b>TRAINING</b>				
<b>Contractor Cost Included (Y/N)</b>	<b>Comments for Y/N Response, if any</b>	<b>Administrator Cost Included (Y/N)</b>	<b>Comments for Y/N Response, if any</b>	<b>Administrator Training Additional Cost (\$)</b>
Yes	Contractors are able to participate in scheduled webinar training sessions and download training materials. The cost of training is borne by the owner.	No	Elations will conduct owner specific training session, record session and post on website for unlimited contractor retrieval and owner use.	\$300.00 per session.

Data Source: Elation interview and webinar presentation.

### Technical Support

As illustrated in Table 11, Elation provides live and web-based support to all users. Live technical support is available Monday through Friday from 8:00 am to 5:00 pm (PST). There is no wait time for calls received by live technical support staff during non-peak hours. Peak hours are 10:30 am to 12:30 pm. During peak hours, an estimated 30% of calls are referred to voicemail. There is an average 4-hour call return for calls not answered by live technical support staff. Users requiring technical support also have the option of requesting an appointment to obtain dedicated support during their desired time. Training materials, which may contain the response to the technical support question are available for viewing and download 24 hours a day. There is no cost for technical support imposed on the IOU owner or contractor. For the purposes of creating dedicated technical support services to potential IOU owners, Elation offered to establish a concierge technical support line for IOU owner administrators.

**Table 11. Elation Technical Support by Type of Service**

<b>TECHNICAL SUPPORT</b>				
<b>Live Technical Support (Y/N)</b>	<b>Average Wait Time</b>	<b>Web-based Support (Y/N)</b>	<b>Average Wait Time</b>	<b>Describe any cost or limitation of support to owner or user</b>
Yes	No wait time for calls received by live technical support staff during non-peak hours. Peak hours are 10:30am to 12:30pm. During peak hours, only 30% of calls are referred to voicemail. Average 4 hour call return for calls not answered by live technical support staff.	Yes	Same as live technical support. However, training materials are available 24 hours a day.	No cost to owner or contractor. Vendor will set up Concierge technical support line for owner administrators.

Data Source: Elation interview and webinar presentation.

### Privacy and Security

Elation uses advanced technology to ensure Internet security. When anyone accesses the site using Microsoft Internet Explorer versions 6.0 or higher, Secure Socket Layer (SSL) technology protects the



information using both server authentication and data encryption, ensuring that data is safe, secure, and available only to registered users. Elation is hosted in a secure server environment that uses a firewall and other advanced technology to prevent interference or access from outside intruders.

Elation provides each user with a unique user name and password that must be entered each time a user logs on. Elation issues a session "cookie" only to record encrypted authentication information for the duration of a specific session. The session "cookie" does not include either the username or password of the user. Elation does not use "cookies" to store other confidential user and session information, but instead implements more advanced security methods based on dynamic data and encoded session IDs.

Elation established security measures to help protect against the loss, misuse, and alteration of the data under their control. When the Elation site is accessed using Netscape Navigator, or Microsoft Internet Explorer versions 5.5 or higher, Secure Socket Layer (SSL) technology protects information using both server authentication and data encryption to help ensure that data is safe, secure, and available only to you. Elation also implements an advanced security method based on dynamic data and encoded session identifications, and hosts the site in a secure server environment that uses a firewall and other advanced technology to prevent interference or access from outside intruders. Finally, Elation provides unique user names and passwords that must be entered each time a customer logs on. These safeguards help prevent unauthorized access, maintain data accuracy, and ensure the appropriate use of data.

### **System Reliability**

Aside from standard scheduled maintenance, Elation experienced no downtime since 2005.

### **Ease of Use**

Elation determined that a tech savvy user's competency is achieved after one payroll submission. For users who may not be tech savvy but received Elation training, competency is achieved within one hour. However, untrained and users who may not be tech savvy, achieved competency in three to four hours.

### **Costs**

Elation provided an annual flat fee option of \$40,000 per year, per utility company, based on \$200 million in project contract value.

While Elation will not impose an additional cost for customized system configuration, if the same configuration is used by all potential IOU owners, additional programming costs of \$140.00 per hour are applicable if the potential IOU owners desire to have distinct data elements, reports, etc.

While there is no cost for contractors to participate in scheduled webinar training sessions, there is a cost if the training is specific to potential IOU owners. The standard cost is \$300.00 per session and each session may include up to 100 participants.

## ► LCPtracker System

### **System Configuration & Capabilities**

LCPtracker does not possess the existing capabilities to track, monitor and report all the key data elements shown in Table 12. Specifically, it does not possess all the capabilities to capture and report on all the data requirements to demonstrate training investments, quality of work, or the qualifications of participating contractors.

However, LCPtracker is currently in the process of developing the Workforce Manager module that will enable the job quality, career ladders, and training investments to be tracked, monitored and reported. Through the development of Workforce Manager, LCPtracker will expand its current system's contractor and contract profiles to collect and report on quality of work and contractor qualifications. LCPtracker is currently in the process of identifying beta clients to help define and create the Workforce Manager module. As a beta client, the potential IOU owners would have an opportunity to create a customized module that would collect, track and report on all the key data elements and unlimited upload interfaces during the beta development period for a structured cost. LCPtracker anticipates the completion and availability of the Workforce Manager module by the end of December 2016.

**Table 12. LCPtracker System Capabilities to Incorporate Major Data Elements and Measures**

	SYSTEM CONFIGURATION/CAPABILITIES		
	Current System Capability (Y/N)	Additional Cost (\$) for Configuration, if any	Current Validation Settings Available (Describe)
<b>Job Quality</b>			
Compensation Type (hourly, salary or per unit)	Yes	System capabilities are currently in place to track, monitor and report these data points. There will be a cost for customized configuration to serve all owner users.	System has existing validation settings, however, new validations may be established upon configuration.
Hourly wage rate	Yes		
Average hours worked per week by employee job type	Yes		
Benefits	Yes		
CARE Eligible Employees	Yes		
<b>Workforce Diversity/Disadvantaged Worker</b>			
Demographics (race/ethnicity)	Yes	Same as above.	Same as above.
Demographics (gender)	Yes		
Demographics by Job Type	Yes		
Demographics by social/economic status (homeless, recipient of public benefits, poverty, no high school diploma, etc.)	Yes		
Veteran status	Yes		
Low-income zip code	Yes		
<b>Career Ladders</b>			
Career Trajectory over time	Yes	System capabilities are currently in place to collect this data point. However, there may be a cost for customized configuration for reporting.	Same as above.
Apprentices hired	Yes		
Apprentices retained	Yes	System capabilities are currently in place to collect this data point. However, there may be a cost for customized configuration for reporting.	
<b>Training Investments</b>			
Training completions	No	There will be a cost for customized configuration to collect, track and report these data points.	Same as above.
Hiring rates from various training programs	Yes		
Turnover rates (Average years of employment in current position)	Yes	System capabilities are currently in place to collect this data point. However, there may be a cost for customized configuration for reporting. Same as above.	
Retention rates	Yes		
Worker certifications / Licenses	No		
<b>Quality of Work</b>			
Inspection success/failure rates	No	There will be a cost for customized configuration to collect, track and report these data points.	Same as above.
Call backs	No		
Other measures of quality (e.g., safety, energy savings)	No		
<b>Qualifications of Participating Contractors</b>			
Contract terms (subcontractor, competitive bid, direct award)	No	Same as above.	Same as above.
Inspection success/failure rates	No		
Contractor certifications / licenses	No		
Contractor investments in employee training (annual investment per worker, employee training program related to specific certifications/license)	No		

Data Source: LCP Tracker capability response in interview and matrix.

### Data Upload/Integration

As illustrated in Table 13, LCPtracker has the ability to upload a contractor’s employee and payroll information through an interface to their commercial payroll system. LCPtracker may impose a cost to the contractor if the interface to a specific commercial payroll system is not already available. However, it is important to note that not all employee demographic data will be available in the

contractor’s payroll system. LCPtracker has the ability to upload data from a vendor/contractor database through an interface that would have to be established. Any costs associated with creating an interface would be included in the development of the Workforce Manager module.

## Reports

As illustrated in Table 14, LCPtracker does not possess the capability to report on all the data requirements to demonstrate training investments, quality of work, or the qualifications of participating contractors. This capacity will be created through the development of the Workforce Manager module, which will include the creation of custom reports for these key data elements. Any data limitations will be based on the quality and completeness of available data collected in system via upload or data entry. The availability and consistency of data will impact the quality and value of reporting.

**Table 13. LCPtracker Data Upload and Integration Features for Major Data Elements and Measures**

	DATA UPLOAD/INTEGRATION			
	Current Ability to Upload Data from Commercial Payroll Systems (Y/N)	Additional Cost (\$) for Upload Interface, if any	Current Ability to Upload Vendor/ Contractor Data (Y/N)	Additional Cost (\$) for Upload Interface, if any
<b>Job Quality</b>				
Compensation Type (hourly, salary or per unit)	Yes	Cost to be borne by contractor.	N/A	N/A
Hourly wage rate	Yes			
Average hours worked per week by employee				
job type	Yes			
Benefits	Yes			
CARE Eligible Employees	Yes			
<b>Workforce Diversity/Disadvantaged Worker</b>				
Demographics (race/ethnicity)	Yes	Same as above.	N/A	N/A
Demographics (gender)	Yes			
Demographics by Job Type	Yes			
Demographics by social/economic status (homeless, recipient of public benefits, poverty, no high school diploma, etc.)	Yes			
Veteran status	Yes			
Low-income zip code	Yes			
<b>Career Ladders</b>				
Career Trajectory over time	Yes	N/A	N/A	N/A
Apprentices hired	Yes			
Apprentices retained	Yes			
<b>Training Investments</b>				
Training completions	N/A	N/A	N/A	N/A
Hiring rates from various training programs				
Turnover rates (Average years of employment in current position)	Yes			
Retention rates	Yes			
Worker certifications / Licenses	Yes			
<b>Quality of Work</b>				
Inspection success/failure rates		N/A	Yes	Proposed to be Included in configuration set-up flat fee cost.
Call backs	N/A		Yes	
Other measures of quality (e.g., safety, energy savings)			Yes	
<b>Qualifications of Participating Contractors</b>				
Contract terms (subcontractor, competitive bid, direct award)		N/A	Yes	Same as above.
Inspection success/failure rates			Yes	
Contractor certifications / licenses	N/A		Yes	
Contractor investments in employee training (annual investment per worker, employee training program related to specific certifications/license)				
			Yes	

Data Source: LCP Tracker capability response in interview and matrix.

**Table 14. LCPtracker Data Reporting Features for Major Data Elements and Measures**

	REPORTS					
	Existing Report Available (Y/N)	Custom Report Required (Y/N)	Comments for Y/N Response, if any	Data Limitations (Describe)	Cost Included with License (Y/N)	Additional Cost (\$) Estimate, if any
<b>Job Quality</b>						
Compensation Type (hourly, salary or per unit)	Yes					
Hourly wage rate	Yes					
Average hours worked per week by employee job type	Yes	No	No comments.	Data limitations will be based on data collected in system.	Yes	N/A
Benefits	Yes					
CARE Eligible Employees	Yes					
<b>Workforce Diversity/Disadvantaged Worker</b>						
Demographics (race/ethnicity)	Yes					
Demographics (gender)	Yes					
Demographics by Job Type	Yes					
Demographics by social/economic status (homeless, recipient of public benefits, poverty, no high school diploma, etc.)	Yes	No	No comments.	Same as above.	Yes	N/A
Veteran status	Yes					
Low-income zip code	Yes					
<b>Career Ladders</b>						
Career Trajectory over time	Yes					
Apprentices hired	Yes	No	No comments.	Same as above.	Proposed to be included in configuration set-up flat fee cost.	Proposed to be included in configuration set-up flat fee cost.
Apprentices retained	Yes					
<b>Training Investments</b>						
Training completions	No	N/A				
Hiring rates from various training programs	Yes	N/A				
Turnover rates (Average years of employment in current position)	No	Yes	designed during configuration in order to meet data requirements.	Same as above.	Same as above.	Same as above.
Retention rates	No	Yes	Same as above.			
Worker certifications / Licenses	Yes	Yes				
<b>Quality of Work</b>						
Inspection success/failure rates	No	Yes	Custom report to be designed during configuration in order to meet data requirements.	Same as above.	Same as above.	Same as above.
Call backs	No	Yes				
Other measures of quality (e.g., safety, energy savings)	No	Yes				
<b>Qualifications of Participating Contractors</b>						
Contract terms (subcontractor, competitive bid, direct award)	No	Yes				
Inspection success/failure rates	No	Yes				
Contractor certifications / licenses	No	Yes				
Contractor investments in employee training (annual investment per worker, employee training program related to specific certifications/license)	No	Yes	Same as above.	Same as above.	Same as above.	Same as above.

Data Source: LCP Tracker capability response in interview and matrix. <http://www.lcptracker.com/solutions/contractor>, <http://www.lcptracker.com/solutions/lcptracker>

## Training

As illustrated in Table 15, LCPtracker conducts training sessions for all users as needed in a web-based format. All users have access to all training materials such as user manuals, online training videos, quick reference sheets, and other tutorials. However, additional custom training, beyond the initial training session for administrator users conducted as part of the system start-up phase, is available for a \$250.00 fee per session.

**Table 15. LCPtracker Training Services and Costs**

TRAINING				
Contractor Cost Included (Y/N)	Comments for Y/N Response, if any	Administrator Cost Included (Y/N)	Comments for Y/N Response, if any	Administrator Training Additional Cost (\$)
Yes	Contractors are able to participate in scheduled webinar training sessions and download training materials.	No	LCP Tracker will conduct owner specific training session for administrator users, which is included in the \$3,950 start-up fee. Additional no-cost scheduled training is available on a routine basis.	Custom Admin training is available at a cost of \$250.00.

Data Source: LCP Tracker capability response in interview and matrix.

LCPtracker’s training program for administrators and contractors contains a variety of training tools available to users to allow them to increase their proficiency in utilizing the system. There is no additional cost associated with using these training methods; they are included in the start-up fee. These tools include:

- Instructor-led training
- Self-led video training
- Self-led training document review
- Administrator and contractor instruction manuals

**Instructor-led training** may consist of both onsite and web-based training classes whereby the instructor will walk the administrative users and the contractors through the LCPtracker database. Content covered is geared to ensure that all users learn to navigate the system and to be proficient with basic functionality. Web classes are offered three times per week for contractors and bi-weekly for administrators.

**Self-led video training** consists of a series of eTraining videos that a user may view on-demand. Once a user receives a user ID and password from LCPtracker, he/she may login to view one of several training videos posted on our eTraining link. Many of these are short in duration and cover specific topics such as, editing an existing CPR, setting up an eSignature password, etc. There are also full-length training sessions that show the entire content of the instructor-led training.

**Technical Support**

LCPtracker provides support services to address clients’ needs by utilizing experienced Project Managers and customer service staff. All phone based technical support is free to all LCPtracker clients. LCPtracker monitors its technical support response rate. During the last 12 months, LCPtracker’s support team answered over 97% of all support calls live with an average wait time of 2.5 minutes.

**Table 16. LCPtracker Technical Support by Type of Service**

TECHNICAL SUPPORT				
Live Technical Support (Y/N)	Average Wait Time	Web-based Support (Y/N)	Average Wait Time	Describe any cost or limitation of support to owner or user
Yes	96% of all technical support calls are answered by live support staff, however, average wait time may be 2.5 minutes.	Yes	Training materials and videos are available 24 hours a day.	No cost for technical support.

Data Source: LCP Tracker capability response in interview and matrix.

As illustrated in Table 16, there is no cost to technical support and there are a variety of ways in which to obtain technical support.

**Support for hosted system** - Unlimited support is provided by phone and email to both user staff and contractors.

**Go-To Assist remote login by our support team** – LCPtracker also provides Go-to-Assist ability for administrators and contractor users. This is a feature that allows LCPtracker the technical ability to take over a user’s system to assist them with their technical question in real-time.

Local phone numbers, and any applicable direct access numbers, are designated on a case-by-case basis to best serve the IOUs. Contact information will be provided during implementation, and posted on-line for end users to view and use when needed.

Hours of Availability - LCPtracker’s departments are available during the hours listed below:

Customer Support: 5:00 am to 6:30 pm  
Pacific Time, Monday through Friday

Technical Support: 5:00 am to 6:00 pm  
Pacific Time, Monday through Friday

Business Office Hours: 7:00 am to 5:00 pm  
Pacific Time, Monday through Friday

**Privacy and Security**

Access to SQL Azure databases is controlled through firewalls located in Microsoft's datacenters. These firewalls are configured to allow controlled access to the databases for users via the LCPtracker system only and from specific IP addresses.

Passwords, financial information, and other confidential data are encrypted immediately upon receipt and stored in the database. Keys to encrypt and decrypt data are compiled into objects that cannot be broken. SQL Azure forces SSL encryption with all client connections at all times.

Online Services Security and Compliance (OSSC) manages the physical security of all of Microsoft's data centers, which is critical to keeping the facilities operational, as well as, to protect customer data. Established, precise procedures in security design and operations are utilized for each facility. Microsoft ensures the establishment of outer and inner perimeters with increasing controls through each perimeter layer.

The security system applies the combined use of technology solutions including cameras, biometrics, card readers, and alarms with traditional security measures such as locks and keys. Operational controls are incorporated to facilitate automated monitoring and early notification if a breach or problem occurs, and enables accountability through the provision of auditable documentation of the data center's physical security program. The following list provides additional examples of how Microsoft applies controls to physical security:

- Restricting access to data center personnel – Microsoft provides security requirements upon which data center employees and contractors are reviewed. In addition to contractual stipulations about site staff, a further layer of security within the data center is applied to personnel that operate the facility. Access is restricted by applying a least privilege policy, so only essential personnel are authorized to manage customer applications and services.
- Addressing high business impact data requirements – Microsoft has developed more stringent minimum requirements for assets categorized as being highly sensitive than for those of low or moderate sensitivity within the data centers used to provide online services. Standard security protocols regarding identification, access tokens, and logging and surveillance of site entry clearly state what type of authentication is needed. In the case of access to highly sensitive assets, multifactor authentication is required.
- Centralizing physical asset access management – Microsoft developed a tool to manage access control to physical assets, which also provides auditable records through the centralization of workflow for the process of requesting, approving, and provisioning access to data centers. This tool operates using the principle of providing the least access needed and incorporates workflow for gaining approvals from multiple authorization parties. It is configurable to site conditions and enables more efficient access to history details for reporting and compliance with audits.

The data security of LCPtracker is established in several layers. These layers include:

- Transmission encryption using SSL – similar to on-line banking
- Firewall
- Critical data encryption
- Secure login procedures
- Limits on login attempts
- A minimum password complexity requirement

Each client has a separate database for login security. The social security (SS) number is optional in the database. If collected by clients, the SS number is encrypted at the field level. All public reports



for the SS number have redacting capabilities. Only one report lists the SSN – the CPR report (PDF only) and it is optional on that report. Only two forms display the SSN; the contractor employee setup form and the administrator employee review form. This approach provides access to the SSN as required by various enforcement agencies while prohibiting any mass download of a list of name, address, and SSN data.

Additionally LCPtracker imposes the following internal security steps:

- Access to database is limited to a small set of employees
- Background checks are performed at time of hiring on all employees
- Tools built into LCPtracker limit the amount of data that can be accessed at one time except for those with direct database access.

### **System Reliability**

LCPtracker contracted with Microsoft to provide a hosted, cloud-based infrastructure software service called Azure, which is a highly available, distributed “scaled-out” database service. Azure enables easy provisioning and deployment of relational database capabilities. High availability, backup and recovery, geo-distribution and disaster recovery are built-in. The LCPtracker web app, web services, databases, and electronic documents are hosted in the MS Azure cloud, which is a FedRamp, SOC1, SOC2, as well as ISO 27001 certified service.

LCPtracker guarantees to provide at minimum 99.5% availability for the SaaS software annually. Downtime calculations do not include failures of the internet carrier, MS AZURE and any planned LCPtracker maintenance time. LCPtracker’s trend over the last several months is 99.9% availability to all users.

SQL Azure runs back-ups periodically and runs consistency checks to recover from a hardware failure. This is a built-in internal operation that supports the overall health of the service and provides for automatic recovery. Additionally, LCPtracker backs-up all data nightly to a separate data store. Daily backups are retained for one month. Monthly backups are retained for one year.

Microsoft Azure provides inherent advantages: there are multiple redundant backup and disaster recovery built into its base service. Every client database is configured separately for scalability and security and each is hosted in a separate machine in Microsoft's data center. Data is replicated to two other locations, one of which is guaranteed to be at least 100 miles away to provide failure and disaster recovery. Databases are backed up at 11:00pm PST Monday through Friday to storage accounts within a separate subscription in the data center that are themselves replicated to two other locations. Therefore, the LCPtracker service is in three locations and backup is in three different locations. Any of these six locations is capable of supporting the LCPtracker service.

### **Ease of Use**

LCPtracker determined that users achieve competency using the system in one-and-a-half to two hours, or within submission of two to three payrolls.

## Cost

LCP Tracker provided the following cost schedule based on volume of contract value in the system, as well as the start-up beta client cost and annual license fee to use the Workforce Manager module. A one-time start-up fee of \$3,950.00 also applies. The set-up fee is a one-time charge that includes 1) Database configuration (with numerous departments for subsidiaries); 2) One prevailing wage data load (up to 8 hours); 3) Administrator onsite training; and 4) On-going, no charge, web-based administrative and contractor training sessions.

**Table 17. LCP Tracker Cost Structure by Project Volume**

Bulk Project Pricing	LCPtracker Professional
Fixed Annual Multiple Projects Fee Option - This is a flat rate price package that includes a one-year commitment use of the LCPtracker service. The prices are based on Open/Active projects in LCPtracker during the contract year. This pricing schedule does not include use of Workforce Manager.	
Up to \$5 Million in construction costs	\$3,000.00
Up to \$10 Million	\$6,000.00
Up to \$25 Million	\$9,000.00
Up to \$50 Million	\$16,000.00
Up to 100 Million	\$21,000.00
Up to \$200 Million	\$27,000.00
Up to \$300 Million	\$34,000.00
Up to \$400 Million	\$40,000.00
Up to \$500 Million	\$47,000.00
Up to \$750 Million	\$53,000.00
Up to \$2 Billion	\$68,000.00
Up to \$4 Billion	\$94,000.00
Up to \$6 Billion	\$125,000.00
Up to \$8 Billion	\$156,000.00
Up to \$10 Billion	\$187,000.00

**Please Note:** For Bulk Contracts \$2 Billion & Above, you can choose to increase your level in \$500 million increments. The fee for this is \$7,500.00 per \$500 Million.

Data Source: LCPtracker cost proposal

## Workforce Manager Cost and Terms

A \$40,000 origination fee to be a designated beta client that includes a 5-year exclusive pricing, custom design, and use of the Workforce Manager module. The cost to use the Workforce Manager module for two years from the date in which the system goes live with the first version of the module is included in the origination fee. The beta client will receive exclusive pricing plan of \$30,000 annually for use of the Workforce Manager module during years 3 through 5.

## 6. CONCLUSIONS

The key findings indicate that both ODRS reviewed offer digital platforms that demonstrate similar capabilities with respect to: 1) collecting and reporting demographic, wage and occupational data; 2) maintaining high industry and government standards for data security; 3) system reliability with reported little or no “down time” since in operation; and 4) offering capacity for systems integration/interface with enterprise systems.

The benefits of these systems share costs that were not fully assessed in this study but include systems design and management, data verification, systems implementation. Some of this is discussed elsewhere in recently completed research<sup>12</sup> and/or will require additional research and analyses to outline a more comprehensive representation of costs and benefits of implementing the systems.

The systems examined differ with respect to the process of data collection and reporting. Elation uses a more intuitive structure to collect and report data that enables users to “click and drop” data sets to submit payroll reports. Additionally, the Elations system facilitates the linking of multiple modules to generate a more comprehensive report that illustrates worker and contractor employer relationships and specific project contract values. LCPtracker, alternatively, provides structured data collection and reporting formats; thus a more standardized and customized format or traditional method for collecting and reporting data.

The two ODRS differ more substantially, however, in three key areas: 1) The capacity for collecting and reporting quality of work and contractor qualifications data<sup>13</sup> is strongest with Elation, 2)

---

<sup>12</sup> Opinion Dynamics. (2015). *FY2013-2014 California Statewide Workforce Education and Training Workforce Conditions Data Investigation Report*. Prepared for the California Public Utilities Energy Division.

<sup>13</sup> Job quality data includes: workers employed by contractor and subcontractor, including average number of full-time, part-time, and “casual” employees; use of independent contractors; qualifications and experience of workers hired; training provided to workers once hired; wages paid, including starting wages and average wages for key positions; employee turnover and tenure rates; and employee benefits including employer contribution to benefits. Quality of Work data includes: call-back rates, inspection success/failure rates, etc.

LCPtracker provides enhanced customer technical support in terms of their reported technical support response times and services and 3) LCPtracker provides greater training opportunities and options with respect to the number, types and frequency of training. Elation, however, indicated its willingness to customize training for each IOU to limit long-term costs and ensure consistent training.

Similarities between Elation and LCPtracker include:

- Cloud-based ODRS
- Founded to and specializes in labor reporting requirements for large-scale public sector projects.
- More than 10 years of firm experience
- Established security protocols
- Data collection and verification capacities
- Training and Technical Support Services

Differences include:

- Elation has developed a contractor/ work quality data module
- Elation has designed, but not yet deployed a workforce tracking systems, that includes tracking the certifications, career growth, wage growth of workers over time and projects. LCPtracker can design such a module at additional costs
- LCPtracker offers a more extensive array of training opportunities that Elation
- LCPtracker has a more responsive technical support system, including 90% in-person response rate, vs. 30% for Elation
- LCPtracker annual fees and training fees are cheaper, but is more expensive when development and set up fees to include workforce tracking data modules identified in this study
- Elation offers a full complement of data modules at a lower cost.

Some of the key benefits of ODRS that might be considered are:

- Real-time access to data/information as opposed to retrospective information gathered from occasional surveys. Real-time access increases the accuracy of the information as it eliminates errors from the vendor's ability to "recall" project information.
- Real-time access also replaces a "static snapshot" of a particular point in time or reporting on general conditions that is gathered from a survey to capture project data on an ongoing basis. This provides a richer set of data for reporting and analyses.
- Helps structure standardized data collection protocols for all vendors. This is especially helpful and streamlines reporting requirements for vendors who work with multiple IOUs.
- Increased efficiency gained by IOUs if ODRS is used consistently to collect uniform set of data elements. It eliminates separate levels of effort after initial planning and design of the system.

The potential challenges of adopting ODRS may be the administrative and financial requirements of planning, implementing and using the system. The range of possible factors include:

- Increased level of effort for new or existing staff within the IOUs to manage the ODRS.
- Staffing requirements (new or existing) at the vendor level to collect and report data to the IOUs.
- Potential system design costs to accommodate customized data collection and reporting.
- Annual licensing and training fees.

The implementation would include a number of administrative and financial burdens:

- Time to coordinate internal IT support;
- Modifying contract specifications to require reporting of all contractors;
- Development and upload of required forms; modifying existing policies and procedures;
- Identifying all responsible parties within the organization and creating user profiles;
- Coordinating training for all system administrators and access parameters;
- Establishing validation settings in system to ensure integrity and completeness of data collection and reporting;
- Developing custom reports;
- Notification to all contractors of upcoming system use requirement;
- Coordinating contractor training;
- Updating website as required;
- Assigning or dedicating a person or persons as point of contact to contractor inquiries pertaining to reporting requirement.

Similarly, contractors using an ODRS for the first time would also incur administrative costs, including the time devoted to staff training, IT support to download payroll data from commercial payroll system, surveying existing employees and modifying employee data collection forms to secure all job quality, workforce diversity, and career ladders data required by the system. Additionally, contractors would be required to maintain records of employee-specific training investments.

The ODC study<sup>14</sup> provides these additional insights into implementation issues:

- Electronic payroll tracking is the best method to acquire the demographic and wage information requested but investment is not justifiable for all energy efficiency programs
- Data intensive effort not warranted at this time for programs similar in design to the Home Upgrade and Non-Residential Deemed and Custom Core Programs
- Wait until ESA has a good model to follow before requiring other programs to execute a comprehensive approach
- Consider the learnings from this study when determining how to best collect demographic information from ESA contractors or other program contractors in the future
- Require indirect contracting relationship energy efficiency programs to collect and submit select information at this time

---

<sup>14</sup> Opinion Dynamics. (2015). FY2013-2014 California Statewide Workforce Education and Training Workforce Conditions Data Investigation Report.

- The IOUs need help to standardize the definition of work quality across the IOUs and the coding of inspection failures
- An administrative challenge amongst the IOUs needs to be addressed for WE&T