

## **Exhibit A**

### **SCOPE OF ENERGY USAGE DATA RESEARCH**

**Purpose Specification:** The Energy Institute at Haas (Institute) shall conduct the following research using confidential energy usage data:

#### **1. Research Questions**

- *How does school-level energy usage vary as a function of school demographic characteristics, local weather, and other observable factors? What are the key driving factors of energy consumption in school buildings? How much variation in energy usage is within a school over time versus across schools at the same time?*
- *Does the principal-agent problem explain inefficient investments in energy efficiency upgrades at K-12 public schools in California?*
- *How should Proposition 39 funds be allocated across K-12 public schools in California?*

#### **Background and Discussion**

In November 2012, California voters passed Proposition 39, which is expected to direct approximately \$2.5 billion over the next five years to improving energy efficiency at K-12 public schools in California.

Presently, there is relatively little systematic, publicly available information regarding energy use at public K-12 schools in California. Analyzing school site level energy consumption as a function of demographic characteristics of the schools, weather and other variables should provide insights into how schools use energy and how energy usage varies across schools. Simple cross-tabulations (e.g. energy usage per student as a function of share of students receiving free/reduced price lunches, after first controlling for number of computers, students per classroom, etc.) could inform the political discussions about how to allocate Proposition 39 funds. Also, understanding the factors that influence school energy usage will inform statistical power calculations indicating the degree of statistical precision obtainable from different proposed techniques for evaluating the impact of Proposition 39 expenditures.

Once Proposition 39 is implemented and an accepted evaluation methodology is selected, impact evaluations of energy-efficiency retrofits at schools can be conducted, which would support estimates of the rate of return from these types of public-sector energy efficiency investments. We also may develop further insight into the most effective ways to encourage school districts to undertake energy efficiency investments. Importantly, the lessons learned from these evaluations may be used to improve future energy efficiency programs at schools within California and potentially around the United States.

In addition to publishing one or more articles in peer-reviewed academic journals, The Institute may use these data to prepare reports that help inform policymakers, the California State Legislature, PG&E and other key decision-makers about how to identify priority schools that are most likely to benefit from Proposition 39 funds by developing a benchmarking methodology. The Institute shall share its research findings with PG&E in support of PG&E's own Energy Efficiency Portfolio delivery. This methodology may be useful to PG&E, its customers and the State of California to the extent it helps identify schools and other similar institutional buildings with the energy savings potential.

The Institute requests usage and billing data for each K-12 public school including District Administrative offices and other ancillary facilities e.g. corporation yards, central food preparation facilities, etc. in PG&E's service territory where PG&E supplies electricity and/or natural gas. The Institute should be aware that several large school districts located within PG&E's service footprint are Municipal Utilities where only a single commodity or no commodities are provided by PG&E. Some examples would include the San Francisco Unified School District where electricity is provided by CCSF and only natural gas is provided by PG&E. This is also the case in the

greater Sacramento area where SMUD is the electric service provider or Santa Clara served by Silicon Valley Power. In the City of Palo Alto, both commodities are served by the municipal utility. In addition, there will be school districts primarily located in the coastal zone or the Sierra Foothills that are served electricity by PG&E and another fuel such as LPG is provided by another supplier. Data shall be provided at the Service Account (SAID) level with keys to allow for aggregation as required. Data shall be provided for the period commencing January 1, 2007 to current:

- (a) Billing name, and service address;
- (b) Meter address and/or latitude/longitude GIS coordinates
- (c) By SAID, monthly electric and natural gas bills in dollars
- (d) Electricity usage in kilowatt hours (including TOU periods if applicable) by billing period or interval data if available (15 minute or hourly)
- (e) Where applicable electric billing demand data (Rate schedule specific)
- (f) Natural gas usage in therms by billing period or daily usage if available
- (g) Applicable tariff
- (h) Beginning and ending billing dates
- (i) Climate zone
- (j) Any other data variables that the Institute and PG&E agree to via a collaborative working session(s).

As future data become available, the Institute requests these same data over the next five years to December 31, 2018 to be delivered annually (on or about March 1<sup>st</sup> of the following year).

PG&E shall include with its data delivery, a data dictionary describing definitions of terms and a description of data fields.

**2. Transparency and Notice.**

The Institute is requesting electricity and gas usage data for each California K-12 public school served by PG&E. Under this Master Service Agreement, we shall not disclose any identifiable school-specific data to support the research. Rather, only summary statistics and coefficient estimates would be disclosed. To the extent it is determined that research and policymakers would benefit from the disclosure of school-specific energy usage data, and that legislation has not already mandated the release of such data, we would seek authorization from every applicable School District to publish such school specific data.

**3. Individual Participation:**

The data requested involve public K-12 schools. No individual persons' identifiable information shall intentionally be included in the data delivery.

**4. Data Minimization:**

The research described above relies on school-specific energy usage data, including location (e.g., address or latitude/longitude) of each meter.

**5. Use and Disclosure Limitations:**

To the extent the law provides, the Energy Institute at Haas shall not disclose the requested data described above to any third-parties or governmental agencies without the express written authorization of Pacific Gas & Electric Company. These data requested above shall be limited in use to the research purpose stated above and will not be disclosed or otherwise provided to other employees, researchers or graduate student researchers not directly involved in the research described above. These data shall not be used for purposes other than those explicitly stated in this statement of work

**6. Data Security.**

Attached please find the Energy Institute at Haas policy on confidential data.

**7. Accountability and Auditing.**

Attached please find the Energy Institute at Haas policy on confidential data.