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# THIRD-PARTY ENERGY EFFICIENCY PROGRAMS

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## REQUEST FOR ABSTRACTS

Construction, Financing and Surety Industries  
Data Interoperability & Analytics  
Commercial Interest / On-Bill Repayment



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Together, Building  
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## 1. Executive Summary

The Public Benefit Abstract offered by [Construction Progress Coalition \(CPC\)](#), [Surety Resource Connection \(SRC\)](#), SunSpec Alliance, Wells Fargo and [XBRL US](#), is for continuing DOE Green/Orange Button public/private collaboration efforts to establish federally recognized machine readable data interoperability throughout the energy infrastructure supply chain as a *Public Benefit*.

This separate “*Commercial Interest*” Abstract will utilize the DOE Green/Orange Button data interoperability to implement an **Impact Underwriting** Data Based Risk Management structure for the Construction, Finance and Surety industries. This approach will streamline the permit process, contractor, customer and PG&E engagement and for participating in the On-Bill Repayment program, where improved underwriting and risk management is achieved through data driven decisions and analytics enabled by data interoperability.

### Summary Recommendation

PG&E should continue its active leadership and engagement in establishing and promoting federally recognized machine readable data standards for digital communications and electronic transactions for the construction and operations of the Smart Grid infrastructure to promote ConstrucTech, InsurTech and FinTech innovation and competition enabled by the cost effective and reliable Orange Button data exchange.

PG&E should engage with abstract responders to develop commercial applications that utilize DOE Orange Button open data standards for:

- Online System for National Permit Process
- On-Bill Repayment
- Solar eProcure
- Interconnection, Contract and System Performance Guarantees

For the Commercial Interest Abstract the responders, we will lead a collaboration effort with PG&E for digital communications and electronic transactions through a Common Data Exchange (CDX) for small and large scale energy projects, the initial permit and the On-Bill Repayment Program, including the development of the Solar eProcure website to assist PG&E customers in securing qualified solar installers, and support managing existing and future projects.

## 2. Program Concept Data Interoperability as Model for Commercial Interests

During the recent [Global Climate Action Summit in San Francisco](#) the [On-Bill Repayment program was presented as a model example](#) to demonstrate a limited number of data elements are shared by a wide range of stakeholders. Data interoperability and **Impact Policy** for mandated electronic transactions could significantly reduce soft costs throughout the supply chain, promote **Impact Programming** for development of innovative software applications, increase **Impact Underwriting** for innovative financial products and services from emerging FinTech and InsureTech companies and attract better financing from **Impact Investors**.

The Commercial Interest is not limited to this Abstract, PG&E, or California, but part of an international effort to address the challenge of climate change, and in support of the [UN Sustainable Development Goals](#), [Taskforce on Climate Related Financial Disclosures](#) (TCFD), [Global Sustainability Index Institute](#) (UNGSII) along with California efforts AB 32, the Global Warming Solutions Act of 2006, SB 350 the Clean Energy and Pollution Reduction Act of 2015 and 2018 SB 100 the California Renewables Portfolio Standard Program.

While this proposal aligns with the Public Benefit Expanded Recommendations for PG&E as outlined in the Public Benefit Abstract. This proposal stands alone in its recommendations to support PG&E across it's regions in California.

(RES\_COM\_IND\_AGR\_PUB\_Data\_Interoperabilty\_Industry\_NARRATIVE\_2018\_RFA\_85902)

The functionality supports the Construction, Finance and Surety Industries across all PG&E identified sectors. The plan is to initially target the Solar Industry construction and energy performance markets. Once built, tested and implemented, this can expand to all sectors.

### **National Standardized Permit Process**

Surety Resource Connection will develop an online application with PG&E for customers to secure an electronic Permit Surety Bond, based on the DOE Orange Button and the Construction Progression Coalition (CPC) Common Data Exchange (CDX). In the future, this may include Change Orders and other impacts to project completion and energy systems performance analytics.

### **On Bill Repayment**

Surety Resource Connection will develop a model online application for PG&E customers to secure On-Bill Repayment financing with competitive terms supported by a Surety Utility Guarantee Bond. This will improve solar installation contractors' ability to secure construction Surety Performance and Payment bonds, based on the DOE Orange Button and the Construction Progression Coalition (CPC) Common Data Exchange (CDX).

While collaboration on a nationally standardized On-Bill Repayment process would be undertaken as part of the Public Benefit component, it will be incorporated into the CPC/SRC Commercial Interest Abstract with PG&E as a model for how that data interoperability could be utilized by other 3P initiatives to attract capital and financial markets to develop separate and competitive On-Bill Repayment financing programs.

### **Solar eProcure**

Surety Resource Connection will develop an online application for PG&E customers to advertise and procure bonded solar installation contractors for projects funded under the On-Bill Repayment Program.

### **Interconnection and System Performance Guarantees**

Surety Resource Connection will develop a model online application for PG&E independent power producers to secure financial guarantees for Interconnection, PPA and similar obligations, based on "Best Practices" model contracts and forms along with the DOE Orange Button and the Construction Progression Coalition (CPC) Common Data Exchange (CDX) for monitoring system performance to enable predicative analytics to avoid or mitigate defaults for improved claims handling.

### **Response to Specific Questions**

#### **Portfolio Alignment**

PG&E's continued engagement in the Green/Orange Button and collaboration with the Construction Progression Coalition, XBRL US and Surety Resource Connection to provide stakeholders engaged in building the Smart Grid with reliable and secure data exchange will enable a wide range of entities to develop products and services as 3P strategic partners without proprietary constraints, exclusivity or endorsement of any kind.

### **Assessment of Program Benefits**

By PG&E continuing to lead and support the Green/Orange Button in alignment with the UNSDG's, along with the international movement towards data interoperability, it can be assumed system developers will have significantly reduced R&D and implementation expenses to create new innovative applications, products and services free from any barriers.

Customers will benefit from reduced financing costs and increased visibility and risk management through contractor pre-qualification and project monitoring.

### **End-to-End Approach**

The DOE Green/Orange Button XBRL taxonomy is already operational and being implemented by Surety Resource Connection from the initial permit phase all the way through construction and ongoing operation. The goal is to incorporate PG&E projects for speed, cost reduction and operations transparency while facilitating ease of use by all parties.

### **Marketing and Outreach**

There is always resistance to something new, different or disruptive. We will work with PG&E Marketing to shape the narrative for transitioning to on-bill and online project management, as well as to engage the general population in a non-technical format. We already have various media resources, including:

[Shared Pain Podcast](#)

[Hirsch Media - Data Standards on the Horizon for Construction](#)

[Orange is the New Green \(Button\)](#)

[American Resilience Project - Current Revolution](#)

[Prime Numbers Films](#)

[Faux Reels Productions](#)

### **Channel and Partnership Strategies**

This collaboration will include multiple public and private entities, regulatory agencies, trade associations, standards bodies and incorporate past and present DOE and NREL efforts.

The final list of initial collaborations and participants will be developed as part of the RFP phase.

Additional collaborators and participants are unlimited, as the data standards are available to everyone without restriction.

### **Energy Savings Measurement Platforms**

To measure energy of financial savings there needs to be a way to quantify the data with terms and definitions that are consistent and universally understood.

The taxonomy provides the ability to quantify data with reliable and consistent data elements.

### **Coordination with CCAs / RENs / LGPs**

Community Choice Aggregators (“CCA’s”), Renewable Energy Networks (“REN’s”), and Local Government Partnerships (“LGP’s”) can all benefit from data interoperability with their respective stakeholders.

### **Incentive Structure / Value to Customer**

The incentive for adopting and implementing data interoperability is reduced cost, improved data exchange and to enable data analytics.

### **Performance Pricing**

PG&E customers and Independent Energy Producers will have their respective cost of financing reduced when the capital and financial markets have better underwriting information to leverage AI and can monitor system performance for risk management.

### **Contributing to a cost-effective program portfolio which**

Serves all PG&E customer sectors and sub-sectors outside the scope of EE Programs identified for statewide administration (see D.18-05-041, page 91);

- Surety Based Risk Management for permitting, financing and risk management extends to all customer sectors of PG&E.

Serves all PG&E customer sizes;

- Surety Based Risk Management extends to all customer sizes of PG&E.

Serves all geographies within PG&E’s service territory;

- Surety Based Risk Management extends to all geographies of PG&E.

Addresses the specific needs of Hard-To-Reach Markets and Disadvantaged Communities;

- Surety Based Risk Management to help reduce the cost of installing solar systems for energy efficiency will have the biggest impact on Hard-To-Reach Markets and Disadvantaged Communities where the cost of energy as it relates to income is greatest, and energy poverty is a real problem.

Promotes long-term Market Transformation of the EE market;

- Surety Based Risk Management is a long-term solution, with short term payoff.

Includes local pilot ideas to test new programs in PG&E territory with potential for future Statewide Administration;

- The national standardized permit process, system performance monitoring and the On-Bill Repayment are just three of the many pilot programs that data interoperability will enable.

Includes any combination of resource and/or non-resource program elements that support energy savings acquisition;

- The combination “PG&E system for administering On-Bill Repayment” synergizes with Data interoperability for attracting third party financing from capital markets, and insurance and surety products from the financial markets to promote construction of energy projects.

Utilizes Deemed, Custom and/or Meter-based energy savings calculation methodologies or any combination of these methodologies;

- The solar system installed will reduce the cost of energy as the demand for external power will be reduced as it is generated internally, with savings tracked. Also manpower will be a significant savings, with metrics and tracking to be developed.

Utilizes any combination of upstream, midstream, downstream or direct installation delivery channels;

- As an example of data interoperability, system performance monitoring, the administration of the permit process and/or the On-Bill Repayment program demonstrate engagement with all upstream, midstream, downstream or direct installation delivery channels;

Includes EE programs that have an integrated Demand Response (“DR”) capability;

- The installation of solar systems that align with DOE Green/Orange Button and the Smart Grid that includes monitoring, results in components that can utilize the data for Smart energy usage, including HVAC and smart appliance.

Provides novel approaches to improving the customer experience and outcomes;

- Surety Based Risk Management that leverages streamlined online applications, digital monitoring and electronic transactions will provide for an improved customer experience.

Adds to the diversity, safety and sustainability of PG&E’s supplier base.

- Surety Based Risk Management will improve access to surety credit for the entire supply chain with a focus on helping small and local companies.

### **Confirming No Conflicts**

EE Programs identified for statewide administration (see D.18-05-041, page 91);

- Surety Based Risk Management enables more efficient implementation of EE programs, it does not conflict.

Non-Resource activities provided by lead local partners of Local Government Partnerships (“LGPs”). LGP proposals will be collected in a separate process;

- Surety Based Risk Management does not have any Local Government Partnerships that would be a conflict.

Workforce Education and Training (“WE&T”), Emerging Technologies (“ET”), and Codes and Standards (“C&S”) programs;



Workforce Education and Training (“WE&T”)

- The STEM program at CSU Chico is a workforce education program, but under a university curriculum, not an independent program and not a training program

Emerging Technologies (“ET”)

- The DOE Orange Button leverages existing technology, not emerging technology.

Codes and Standards (“C&S”) programs;

- In this reference Codes and Standards is about component details and building requirements and is not related to data standards.

Programs that overlap with PG&E’s Low-Income Energy Savings Assistance (“ESA”) Program;

- Surety Based Risk Management does not conflict with this excluded program

Programs that overlap or duplicate EE programs offered by other entities active in PG&E service territory like Community Choice Aggregators (“CCAs”) such as Marin Clean Energy (“MCE”) and Regional Energy Networks (“RENs”) such as San Francisco Bay Area REN (“BayREN”).

- Surety Based Risk Management does not conflict with this excluded program

Standalone Demand Response Programs. However, the integration of EE with DR, as described by D.18-05-041, where EE is the main component of the Program, is allowed;

- Surety Based Risk Management is not a standalone demand response program.

Cogeneration, distributed generation, or self-generation projects. However, 3P Programs that can demonstrate alignment with or tangential benefits to other programs beyond EE is allowed and encouraged (community solar, electric vehicles, energy storage, etc.)

- Surety Based Risk Management is not a Cogeneration, distributed generation, or self-generation program.

Programs that solely rely upon unproven new technology, technologies in research and development (“R&D”), or limited production technologies that cannot support an effective EE Program.

- Surety Based Risk Management leverages existing and proven technology.

**3. Company Experience and Qualifications (Suggested Length - 3 pages)**

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