





SGIP 2015 ANNUAL CONFERENCE

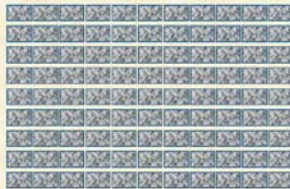
ADVANCING THROUGH COLLABORATION



 Workshop: Smart Grid Bankability Priority Action Plan
 Update on Solar Bankability Data to Advance Transaction and Access
 Re-tasking Smart Grid Interoperability Panel Priority Action Plan 25
How Data Interoperability Can Improve Access to Surety Credit


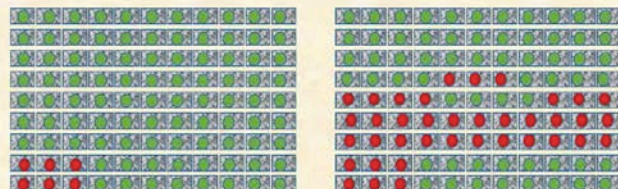
Solar Bankability Data

Data for Individual Panel
and Panel Array Performance

What we knew Yesterday



What we will know tomorrow



● Not Working
● Working

Question: Which Panel Array of Tomorrow Will Get Better Financial Terms

Answer: The One Whose Data Can Demonstrate Predictable Performance

= Solar Bankability Data

SGIP PAPER-25: Smart Grid Bankability Status Update and Re-tasking Report

Smart Grid Interoperability Panel
National Convention
New Orleans
November 5, 2015

SGIP PAP-25: Smart Grid Bankability Status Update and Re-tasking Report

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Background

[SGIP PAP25](#) (Smart Grid Interoperability Panel – Priority Action Plan 25 – Smart Grid Bankability), the “Next Green Button”, was established in 2014 with the objective of harmonizing financial data interoperability between stakeholders by seeking to expand awareness of key resources that with industry collaboration could be aligned instead of duplicated, starting with simple [Data Sets](#) for exchanging common data as an email attachment. And with multi-industry collaboration could truly deliver on the potential of data interoperability to improve efficiency, increase effectiveness, reduce redundant data entry, drive down soft costs, enable data analytics, along with the [creation of new financial products and services](#) throughout the supply chain.

The formal establishment of some initial Data Sets will promote system administrators and application developers to create new innovative tools and resources, modeled after how the initial [Green Button](#) energy usage Data Set and [guidelines](#) spawned a [wide range of new applications](#) that could analyze energy usage and develop energy saving strategies.

SGIP PAP25 seeks to replicate the [Green Button](#) so that new innovative applications can be developed for building the nation’s energy infrastructure, the Smart Grid. Not as an energy only specific and “silo’ed” resource, but as a multi-industry, multi-stakeholder resource that energy aligns with. Data interoperability processes and procedures that are not constrained by proprietary systems, but enabled by public open standards like [XBRL](#), acceptable to [government agencies](#), and administered by [XBRL US](#). Not the silo “tree”, the entire “forest”. Not the final answer, but an ongoing contribution to constantly evolving digital reporting, from raw text to XBRL and [FIBO](#), which [builds on XBRL](#).

Together with [XBRL-CET](#) (eXtended Business Reporting Language – Construction, Energy and Transportation) there have been a series of [outreach efforts, industry presentations, open meetings](#) and [DOE sponsored activities](#) that have resulted in a broad range of stakeholders being aware, supportive and engaged with the exploration of data interoperability in varying degrees. What we refer to as the “Cat Herd”.

Expanding SGIP PAP25

SGIP PAP25 is being Re-tasked to:

- Align with the [International Electrotechnical Commission](#) (IEC), the international standards and conformity assessment body for all fields of electrotechnology and the [International Electrotechnical Commission Renewable Energy](#) (IECRE) - Working Group 404 for developing [IECRE 61724](#), a “System for Certification to Standards Relating to Equipment for Use in Renewable Energy Applications” data set that will contain solar asset performance data to enable monitoring and predicative analytics.
- Align with the [Financial Industry Business Ontology](#) (FIBO) Data Set in collaboration with the [Enterprise Data Management Council](#) (EDM) for inclusion of SGIP PAP25 data sets, starting with IECRE 61724, in the FIBO catalogue of recognized data sets. The data set needs to enable compliance with Basel 239, the law that requires banks to be able to adequately apply data analytics to identify risks, as respects solar financing. ([Recorded session is on the Enterprise Data Management website](#)).

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SGIP recently [announced an enhanced strategic relationship](#) with [The Industrial Internet Consortium](#), part of the [Object Management Group](#) (OMG), which is also [aligned with EDM](#).

[XBRL US has also collaborated with EDM, OMG](#)

- Align with the [BEDES](#) effort to have IECRE 61724, part of the BEDES catalogue of recognized data sets.
- Responsive to Cybersecurity risk in developing data exchange structures so that IECRE 61724 performance data from the Smart Grid being “consumed” by the financial sector has proper safeguards and security measures to keep the Smart Grid protected, along with all the stakeholders along the communication string.

Ted Koppel’s new book [“Light’s Out”](#) is a timely reminder of the critical nature of Cybersecurity to SGIP PAP25.

XBRL-CET hosted a symposium for SB-Data respondents on October 9th with over an hour dedicated to the topic of Cybersecurity, the Smart Grid and data exchange. ([Recorded session is on the Enterprise Data Management website](#)).

- Responsive to the potential opportunities that can advanced with data interoperability, like improving access to opportunities for small business and helping veterans transition to great careers in the energy industry.
- Resource to the eventual SB-Data Strategy Working Group, subject to negotiations with the DOE.

The purpose of expanding SGIP PAP25 beyond just energy is to secure broader engagement and higher return on investment for a greater number of stakeholders. Limiting to just energy is a constraint on adoption and implementation, expanding to cover all construction, energy and transportation will significantly improve the level of participation, and further the cause of open standards.

Digital Connectivity – Turning the Burden of Compliance into the Benefit of Opportunity

There is a major data reporting compliance effort by government at all levels, corresponding innovation in the private sector towards greater efficiency and transparency empowered by exchanging data, and emerging predictive analytics enabled by data interoperability.

Problem is that innovation is often driven by those specific compliance requirements, or similar narrowly defined and focused initiatives, have the “Unintended Consequence” of being a “silo” solution that while responsive to an immediate internal need, misses long term opportunities that would significantly add value lost because of the silo approach. A focus on the “Tree” and not the “Forrest” can have negative Unintended Consequences.

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Instead of having compliance drive Unintended Consequences, we are advocating for non-silo “tree” approaches to data management and reporting by outreach and awareness of the “Forest” that can offer Intended Benefits to those that look at the broader picture.

The Smart Grid Interoperability Panel (SGIP) Priority Action Plan 25 (SGIP PAP25) is to prevent the “Unintended Consequence” of compliance to the Energy Independence Act, DATA Act, Basel 239 and other legislative mandates, or targeted R&D grants, from creating a series of overlapping data exchange silos that add considerably to the complexity of multi-industry information aggregation and sharing, thereby denying or constraining the potential benefit of true data interoperability and curtailing the catalyst for innovation.

Connectivity is the objective.

PV Project Certificate - Data Set For Solar Asset Performance Metrix – Bankability

At the SGIP national convention (November 5th) we are presenting how industry adopted Data Sets enable data analytics that can be utilized for improved risk management, which in turn will promote development of innovative new tools and resources from multiple stakeholders that will contribute to the successful building of the nation’s energy infrastructure, the Smart Grid.

Much like the Green Button Data Set spawned a number of applications to analyze energy usage, the IECRE 61724 Data Set will unleash a similar explosion of innovative applications to monitor and apply predicative analytics to solar assets.

IEC 61724-1 ed2.0 (2015) *Photovoltaic system performance – Part 1: Monitoring*

IEC 61724-2 (2015) *Photovoltaic system performance – Part 2: Capacity evaluation method*

IEC 61724-3 (2015) *Photovoltaic system performance – Part 3: Energy evaluation method*

As an example, just the following four key data elements from the IECRE 61724 Data Set for system performance can be sufficient enough to provide the basic information to qualify for better financial terms and conditions.

1. One-year Output Energy, as defined in Table 3 and section 7.6 of IEC 61724-1
2. Output power measurement as described in IEC 61724-2 and associated reference conditions
3. One-year performance ratio, PR, as defined in Table 11 and section 10.3 of IEC 61724-1
4. Performance index as described in IEC 61724-3

SGIP National Convention – Smart Grid Bankability

SGIP PAP25, originally titled “Harmonized Financial Data”, is being changed to “Smart Grid Bankability” and being re-tasked to better align with, and to support SGIP’s response to the [DOE Solar Bankability Data \(SB-Data\) funding opportunity announcement](#). This working group session will detail how SGIP PAP25 will seek to utilize the DOE SB-Data collaborative platform to align various separate compliance requirements ([Basel 239, 2009 Interactive Data to Improve Financial Reporting](#), [Federal Funding Accountability and Transparency Act, 2015 Financial Transparency Act](#) and the [Digital Accountability and Transparency Act of 2013 \(DATA Act\)](#) where data standards are being mandated.

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The session will explore how SGIP PAP25 and the future SB-Data Strategy Working Group can leverage compliance to promote the establishment of multi-industry [Data Sets](#) to enable data interoperability, with uniform cybersecurity, across all public agencies for compliance with most if not all statutory requirements. Formally adopted and implemented Data Sets, like the [Green Button](#), will provide the structure and impetus for private industry to develop [innovative data analytics](#) and [new products and services](#) for improving access to capital, and for obtaining financial security with better terms and conditions, for renewable projects by better managing risk, and therefore make Solar More Bankable.

With data interoperability all the stakeholders throughout the supply chain, including financial markets, on a Smart Grid project can effectively and efficiently exchange data, innovate risk management techniques along with streamlined reporting for compliance to any regulatory agency.

Otherwise, the lack of risk management tools and constant manual processing and converting data for different reporting requirements will be a drag on the project, increase costs, and adversely affect a projects financial viability.

SB-Data

The DOE sponsored Funding Opportunity Announcement “[Solar Bankability Data to Advance Transactions and Access](#) (SB-DATA)” has been a significant catalyst for promoting multi-industry engagement and collaboration, and largely shares the same objectives as SGIP PAP25 and XBRL-CET.

The DOE SunShot group has selected SGIP for Area A, subject to mutually acceptable terms being negotiated:

Activity Area of Interest A: Stakeholder Engagement & Management (1-2 awards, 2 years, 50% cost share required, \$750,000 anticipated total Federal awards)

Applicants in this area will convene and manage an open industry-led stakeholder process in collaboration with technical working groups across different parts of the value chain to identify data use cases, data gaps, technical inconsistencies, and core needs, especially in relation to data taxonomies, schemas, and data exchange protocols or methods. A strategy working group will lead the program in defining goals, devising strategies, and implementing solutions in coordination with specific stakeholder groups. Awardees under this activity area will coordinate closely with all other working groups (e.g. awardees performing functions under activity area of interest B and C) and provide general guidance in the fields of solar energy and data science.

Awardees under this activity area will conduct a scoping study, convene and manage stakeholder process, act as a strategy working group, and conduct overall assessment of success in creating a robust industry data infrastructure for rapid and seamless data bankability exchange. Key tasks, outcomes and deliverables include but are not limited to:

- Ensure participation from large number of stakeholders that includes local governments, public utility commissions (PUC), electric utilities, independent system operators (ISO),

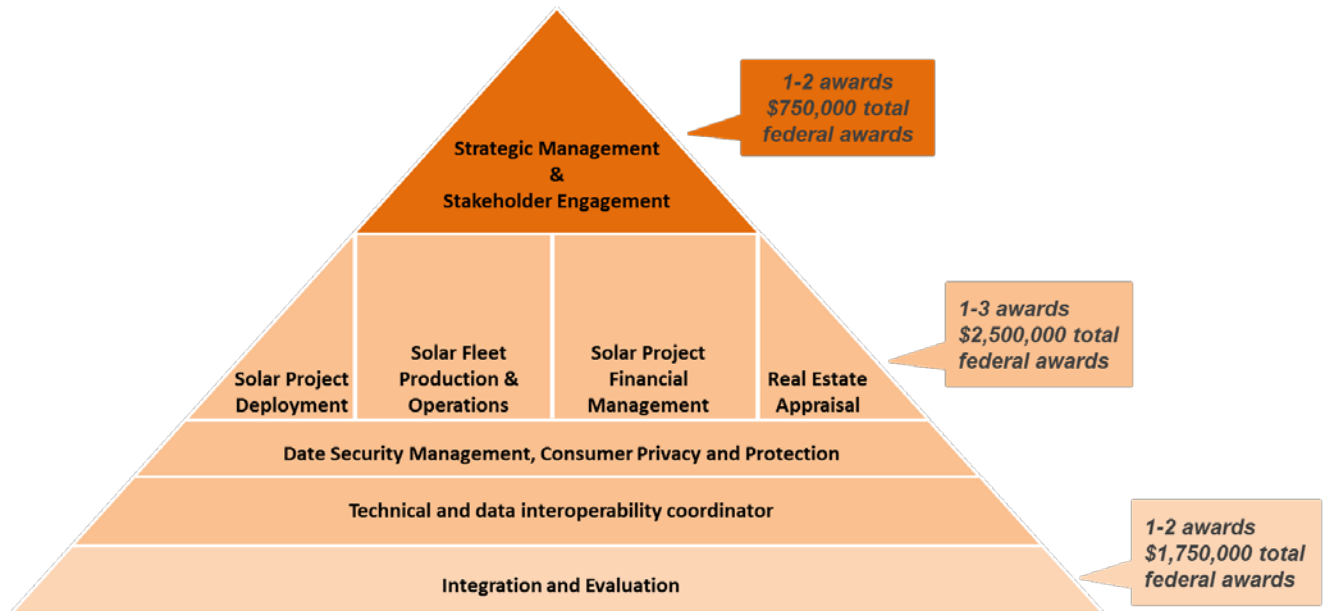
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and regional transmission organizations representing at least 60% of the country's population in addition to solar companies, developers, inverter manufacturers, investors, financial institutions, and other stakeholders covering at least 60% of U.S. solar market.

- Conduct a comprehensive scoping study of current data use cases, operational datasets characteristics, data accessibility, quality, data taxonomies, data schemas, data exchange protocols, technical gaps, and best practices for data management and standardization. The scoping study should include recommendations, strategies for creating harmonized data taxonomies, interposable data schemes and exchange protocols.
- Manage an open stakeholder process with technical working groups to formulate data dictionaries, standards, exchange protocols, and other capabilities across the value chain covering core use cases in the industry (e.g. financing, grid operations, and real estate appraisal).
- Assess success in creating a robust industry data infrastructure for rapid and seamless data bankability exchange.



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Status Update on Initial SGIP PAP25

Initial Deliverable

- D1 Establish XBRL-CET initial taxonomy. An open standards based XBRL semantic extension specifically for Construction, Energy and Transportation to enable interoperability between stakeholders.

The XBRL GAAP taxonomy already exists, the expanded XBRL-CET contribution to identify and tag more data fields will be undertaken independently and as part of SB-Data.

The number of publically traded utility, solar and construction companies means the majority of the common financial reporting data elements are available now.

The process for expanding the taxonomy, and utilizing it beyond just financial reporting to the SEC, is currently under review by the [Surety Fidelity Association of America](#) (SFAA) with XBRL US, along with participation by the [National Association of Surety Bond Producers](#) (NASBP) and [Acord](#). The SFAA/XBRL US review is starting with the basic “work on hand” report relating to construction activity.

The “work on hand” report was cited by the respondents to SB-Data as an initial activity to establish the process of expanding the XBRL taxonomy to include energy related data fields as a platform to collaborate with XBRL and the surety industry.

- D2 Create a prototype Construction Performance Measurement Dashboard using the XBRL -CET. Submitted the Dashboard to [DOE App’s for Energy contest – Data By Design](#)

- D3 CAISO currently publishes online an excel worksheet that provides status updates to stakeholders on all projects in queue. With CAISO support we will have their publicly posted excel spreadsheet properly tagged with XBRL-CET so that stakeholders can better utilize and/or import the information provided.

Deferred until an adequate structure and formally approved XBRL tags are established, which will be part of SB-Data.

- D4 There are over 3,600 utilities that implement the single FERC regulation for interconnection security, and understandably there are numerous versions of surety bond forms, each with their own interpretation of the security obligations. This unnecessarily complicates the ability of the surety industry to develop consistent underwriting policies and procedures and undermines the reliability and predictability of the surety claims handling process. We will work to develop a national standardized interconnection payment bond that can be electronically delivered to any utility consistent with FERC regulations.

The following [standardized surety bonds](#) tailored to the Smart Grid were distributed in concurrently with the September 14th through 17th [Solar Power International](#) conference in Anaheim California, and in anticipation of the SB-Data Strategy Working Group outreach and review process. The resulting suite of bonds, all utilizing XBRL Data Sets, will reflect multi industry collaboration and consensus, mutually acceptable to all stakeholders, and integrate with efficient project administration for the entire supply chain.

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2015 09-14 SGIP PAP25 XBRL-CET - Advance Payment Bond - All States
2015 09-14 SGIP PAP25 XBRL-CET - Engineering Procurement Construction Payment Bond - All States
2015 09-14 SGIP PAP25 XBRL-CET - Interconnection Payment Bond - All States
2015 09-14 SGIP PAP25 XBRL-CET - Power Purchase Agreement Surety Payment Bond - All States
2015 09-14 SGIP PAP25 XBRL-CET - Solar Facility Decommissioning Bond - All States
2015 09-14 SGIP PAP25 XBRL-CET - Solar Module Payment Bond - All States
2015 09-14 SGIP PAP25 XBRL-CET - Solar Module Supply Bond - All States
2015 09-14 SGIP PAP25 XBRL-CET - Solar Module Warranty Bond - All States
2015 09-14 SGIP PAP25 XBRL-CET - Wind Facility Decommissioning Bond - All States

- D5 Solar Nexus, the developer of the Integrated Energy Project Model (IEP XML) recently received a grant from the DOE to continue its development of IEP XML to establishing data standards for the solar industry. We will work with IEP XML so that it synergizes and harmonizes with XBRL-CET taxonomy

Deferred until the SB-Data Strategy Working Group is formed.

Re-tasked Initial Deliverables

- D1 Establish XBRL-CET initial taxonomy. An open standards based XBRL semantic extension specifically for Construction, Energy and Transportation to enable interoperability between stakeholders.

No Change

- D2 Create a prototype Construction Performance Measurement Dashboard using the XBRL -CET. Deferred until an adequate structure and formally approved XBRL tags are established, which will be part of SB-Data.

- D3 CAISO currently publishes online an excel worksheet that provides status updates to stakeholders on all projects in queue. With CAISO support we will have their publicly posted excel spreadsheet properly tagged with XBRL-CET so that stakeholders can better utilize and/or import the information provided.

Deferred until the SB-Data Strategy Working Group is formed.

- D4 There are over 3,600 utilities that implement the single FERC regulation for interconnection security, and understandably there are numerous versions of surety bond forms, each with their own interpretation of the security obligations.

Changed to

Develop a suite of national standardized surety bond forms that can be electronically delivered to any stakeholder, utilize the XBRL taxonomy, tailored to the Smart Grid and energy related activities

- D5 Solar Nexus, the developer of the Integrated Energy Project Model (IEP XML) recently received a grant from the DOE to continue its development of IEP XML to establishing data standards for the solar industry. We will work with IEP XML so that it synergizes and harmonizes with XBRL-CET taxonomy

Deferred until the SB-Data Strategy Working Group is formed.

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Expanded Deliverables

ED1 Work with IECRE and BEDES to establish a Data Set for Solar Asset Performance Metrix – Bankability, included as a recognized data set in BEDES and FIBO.

[International Electrotechnical Commission Renewable Energy \(IECRE\)](#)

Working Group 404

PV Project Certificate

Data Set For Solar Asset Performance Metrix – Bankability

Certificate_number
Certificate_type
Name_of_System
Certificate_holder
Authorized_viewer1
Authorized_viewer2
Authorized_viewer3
Authorized_viewer4
System-type
Geo_Location
System_Capacity_contract
System_Capacity_measured
System_Capacity_ppi
Uncertainty_sc
Availability_design
Timestamp
Energy_Test_Date_Range
Energy_recorded
Uncertainty_er
Energy_Performance_Index
Uncertainty_epi
Availability_raw
Availability_contract
Certifier

XBRL-CET recommendation to the IECRE WG404:

1. Engage and support SGIP PAP25 and SGIP in their negotiations with the DOE, with the IECRE 61724 data set as a pilot project, and adopt an “agile software development” approach with an end goal as depicted in the attached slide (so the non-technical can visualize) which asks the question - Which Panel Array of Tomorrow Will Get Better Financial Terms.
2. Establish the preliminary beta draft initial data fields for IECRE 61724 - PV Project Certificate - Data Set For Solar Asset Performance Metrix – Bankability
The simple format with limited fields is on the [XBRL-CET website](#) so that non-technical people can visualize what information the data will contain.
3. Submit the IECRE 61724 Data Set to BEDES for inclusion in their catalogue of data sets.
The IECRE/BEDES call on Friday set the stage for this opportunity.
For an overview see [BEDES Working Group Meeting - Strategic Topics - February 24, 2015](#)
4. Submit the IECRE 61724 Data Set to XBRL US for possible inclusion in the XBRL taxonomy.
XBRL US was very engaged during the SB-Data response submission, and incorporated in the [concept papers submitted](#).

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5. Submit the IECRE 61724 Data Set to EDM for inclusion in the FIBO catalogue of data sets.
The Re-tasking SGIP PAP [conference call on October 9th](#) set the stage for this opportunity. The data set needs to enable compliance with Basel 239, the law that requires banks to be able to adequately apply data analytics to identify risks, as respects solar financing, An overview the recorded session on [the Enterprise Data Management website](#).
 6. Submit the IECRE 61724 Data Set to SGIP for inclusion in SGIP PAP25 – Smart Grid Bankability
The use of IECRE 61724 for providing improved financial products for the Smart Grid will be presented at the SGIP national convention at the [November 3rd Innovators session](#) and [Nonmember 5th SGIP PAP25](#) session
- ED2 [International Electrotechnical Commission Renewable Energy](#) (IECRE) - Working Group 404 for developing [IECRE 61724](#), a “*System for Certification to Standards Relating to Equipment for Use in Renewable Energy Applications*” data set that will contain solar asset performance data to enable monitoring and predicative analytics.
- ED3 [Enterprise Data Management Council](#) (EDM) for inclusion of SGIP PAP25 data sets, starting with IECRE 61724, in the [Financial Industry Business Ontology](#) (FIBO) catalogue of recognized data sets.
- ED4 [BEDES](#) to have IECRE 61724 part of the BEDES catalogue of recognized data sets.
- ED5 Develop a pilot project with participating stakeholders to improve access to opportunities in solar and energy related careers, particularly for [veterans and veteran owned companies](#).

Steps for establishing pilot project:

- 1) Develop guidelines for establishing the parameters for veteran owned companies to secure bonding support.
 - A. Veteran Owned Company Underwriting Considerations
 - Company financial statement, company profile and “work on hand report” available in XBRL
 - Completion of US Department of Transportation (DOT) [Bonding Education Program](#), or similar resource.
 - Submission of a [business plan](#)
 - Acceptable credit score.
 - B. Project Underwriting Considerations
 - Solar installation contract under \$500,000
 - Projects over \$500,000 with minimal additional information.
 - Panel module supplier responsible for panel warranty.
 - Bonded panel module supply contract.

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- 2) Public Agency establishes training and projects that are appropriate for veteran owned firms.
 - [A New Solar Energy Job-Training Pilot Program for Veterans](#)
 - [Obama: Solar Program to Train Troops for Civilian Careers DoD News](#)
 - [Three Military Bases Partner with Energy Department to Train Veterans for Solar Jobs](#)
 - [Army awards second technology under \\$7 billion renewable energy MATOC](#)
- 3) Public agency establishes procurement policy that utilizes XBRL/FIBO Data sets for core project data
- 4) XBRL/FIBO Data Sets can then be utilized for import into surety underwriting systems
- 5) Standard contract and surety bond forms for installation of solar assets.
- 6) XBRL/FIBO Data Sets can then be utilized for contract preparation, insurance policy issuance and electronic execution of standardized bond forms.
- 7) XBRL/FIBO Data Sets can then be utilized for public agency contract administration, including access to project progress information by the surety in addition to compliance for the DATA Act.

ED6 Coordinate the establishment of data exchange protocols between stakeholders with various efforts to address cybersecurity issues by participating in responses to DOE funding opportunity announcements. Stakeholders working on SB-Data must have the benefit and awareness of activities that relate to safe and secure data interoperability.

[Energy Policy Modernization Act of 2015](#)

- \$65M for each of fiscal years 2017 through 2025 for cyber security testing and cyber resilience program
- \$15M (2017 through 2025) for Cyber Security component testing and writing of procurement guidelines
- \$10M to develop a physical and Cyber Security maturity model as well as research on hardening the grid

[Smart Grid Act of 2015](#)

[Secure and Trustworthy Cyberspace](#) (SaTC)

ED7 Responsive to SB-Data and a resource to the newly formed Strategy Working Group.

ED8 Responsive to the DATA Act and a resource for compliance.

ED9 Responsive to the SFAA/XBRL US effort to establish a process for expanding the XBRL taxonomy, starting with the “work on hand” report.

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ED10 Promote the establishment of a university based Interoperability Research Center to facilitate the expansion of the XBRL taxonomy for energy related data, and synergy with other industry standards, as detailed in DOE FOA - [Buildings University Innovators and Leaders Development \(BUILD\) – 2015](#) , [Sunshot Initiative Solar Data and Informatics RFP](#), and the [aggregated concept papers submitted to DOE](#).

ED11 As part of the educational opportunity for university students in support of establishing the Interoperability Research Center, demonstrate the potential of the expanded and synergized XBRL taxonomy by creating a [Translation/Conversion application](#) for generating XBRL files, and updating the old Chico Common App to various modern Cloud Based platforms like QuickBase (Intuit) and Salesforce with functionality to import and export formal XBRL and proposed XBRL data tags.

Post the “Shareware” programming code and associated collaboration tools on the projects [Quickbase](#) and [GitHub](#) site, and the [US Treasury GitHub](#) site for DATA Act compliance.

Old Chico Common App

www.chico-commonapp-connection.com

Log in as username “sample” and password “sample”

Go to the “Submit” Tab – Far right along the top

Upper Left – View Completed Questionnaire

That is the data ready for printing – Standard Questionnaire

Middle left – Export an XML Format

Creates an XML file that can be sent as an attachment.

Lower left - XML Cross Reference

The imbedded cross referenced spreadsheet.

Lower left of imbedded spreadsheet

Export the imbedded spreadsheet to excel

The cross referenced spreadsheet in excel designed to identify the data fields and propose XBRL tags for inclusion in the formal taxonomy.

ED12 Expand the impact of SB-Data by extending the stakeholders beyond just energy by developing partnerships with stakeholders that have systems and/or applications that would be improved with data interoperability, and provide those agencies, trade associations and government assistance programs with the free “Shareware” Chico Common Application programming code for others to replicate or incorporate, and access to online Translation/Conversion applications, along with technical assistance for cost effective R&D and significantly reduced cost to implement.

- 1) Support the SFAA and XBRL in their efforts with respect to the “work on hand” Data Set.
- 2) Support Caltrans and their compliance with the DATA Act.
- 3) Support trade associations and government sponsored programs that help small business.
- 4) Support efforts to help veterans transition to high quality careers.

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- ED13 Align the new Cloud Based Quickbase/Salesforce Chico Common App with the US Treasury and [US Department of Health and Human Services](#) effort to establish Data Interoperability for compliance with the DATA Act.
- ED14 Develop updated outreach and educational symposiums to demonstrate the potential of data interoperability, across both energy and transportation simultaneously, to improve project administration and access to opportunities for small business while also complying with the DATA Act.
- [Caltrans - Helping Small Business by Complying with the Data Act](#)
 - [Lammers Road Interchange](#)
 - [Digital Connectivity – Turning the Burden of Compliance into the Benefit of Opportunity](#)
 - [US DOE - Small Business and Big Energy](#)
 - [US Treasury - Helping Public Agencies and Private Stakeholders Throughout the Supply Chain Comply with the DATA Act with Engagement and Collaboration to Promote Open Standards and Innovation](#)
 - [Proposed Energy Summit - XBRL - Building the Nation's Energy Infrastructure](#)
- ED15 Develop new outreach and educational symposiums that cover key topics
- 1) Performance metrics and data analytics for solar projects
 - 2) Legal considerations to data exchange
 - 3) Electronic bonding
- ED16 Facilitate various different contractor systems that contain company profiles for outreach to have an XBRL export option that contains the XBRL Data Set for Company Profile.
- ED17 Provide an online cloud based translation/conversion application for generating XBRL files.
Part of ED11
- ED18 Facilitate various different surety and bank systems that could import company profiles to have an XBRL/FIBO import option for the XBRL/FIBO Data Set for Company Profile.
- ED19 Work with public agencies to post project status information that provides compliance with the DATA Act, and can be utilized by the surety for default risk mitigation data analytics.

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Summary

While the expanded deliverables of SGIP PAP25 may seem too aggressive the reality is the project remains essentially the same, how to get Data Sets from one system to another in the supply chain efficiently and cost effectively. The expanded deliverables simply reflects the numerous “touch points” that efficiency could be utilized, and the opportunities that can realized, with data interoperability.

Solve it for one deliverable, and its impact can be on all the deliverables identified. They are not separate; they are connected by the common utilization of the XBRL Taxonomy and synergized industry specific standards.

More importantly the expanded effort on harmonized financial data will generate more innovations enabled by data interoperability.

Just like the initial Green Button.