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Solicitation and Selection of Partner Projects, Technical Team Leads, and Measurement and Validation Contractors for the American Recovery and Reinvestment Act (ARRA) Funded Commercial Building Partnerships (CBP-2)

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September 2010



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1.0 Introduction

In March 2010, Pacific Northwest National Laboratory (PNNL) joined two other labs receiving ARRA funding, Lawrence Berkeley National Laboratory (LBNL) and the National Renewable Energy Laboratory (NREL), to began weekly conference calls with the goal of coordinating a joint lab solicitation to support the ARRA-funded CBP project. Two solicitations were identified for: 1) new CBP Partners; 2) technical contractors to provide technical assistance and measurement and verification (M&V). The M&V contractors support the work by providing model reviews and conducting monitoring studies to verify building performance. This report documents the process used by the labs for the solicitations, and describes the process and outcomes for PNNL, selection of candidate Partners, technical teams, and M&V contractors.

2.0 Partner Solicitation¹

The ARRA-funded Commercial Building Partnerships Call for Projects web site was available for project submissions from April 19 through May 28, 2010. During this time, 46 applications were received. On June 2, 2010, a team of eight independent reviewers evaluated and then rank ordered the applications. The reviewers, technical experts representing a wide cross-section of the commercial building industry, are listed in Table 1.

Table 1. Independent Review Panel

Reviewer Name	Organizational Affiliation
Claire Ramspeck	ASHRAE
Mike Opitz	USGBC
Harvey Sachs	ACEEE
Peter Turnbull	PG&E
H. Jay Enck	CxGBS
William Harrison	Trane Arkansas
Joe Pearson	Purdue University
Don Colliver	University of Kentucky

In addition to the reviewers, a representative from the U.S. Department of Energy, and representatives from each of the three labs participating in the Commercial Building Partnerships program (i.e., LBNL, NREL, and PNNL) provided oversight for the application evaluation process. These representatives are listed in Table 2.

Table 2. Representatives Who Provided Evaluation Oversight

Representative Name	Organizational Affiliation
Brian Holuj	U.S. Department of Energy
Steve Selkowitz	Lawrence Berkeley National Laboratory
Paul Torcellini	National Renewable Energy Laboratory
Ron Nesse	Pacific Northwest National Laboratory

The reviewers worked as two teams of four members, with each team evaluating 23 of the 46 (i.e., half) applications. Each team member read the applications assigned to their team, scored each application independently, and then the four team members collaboratively decided on a composite score for each applicant. At the end of the day, applications were sorted by composite score, with those with the highest scores receiving the highest ranking. As part of this ranking process, in addition to aligning the numerical rankings, there was a broad discussion amongst all of the reviewers as a single group, with the lab representatives present, of common issues and some project-specific topics. This general discussion with all participants was quite useful, leading to the lab meeting that followed as it allowed the lab reviewers to better understand some of the issues raised by the review team that were “embedded” in the numerical rankings.

¹ The section on Partner Solicitation is based on a memorandum from Paul Torcellini, NREL, to Brian Holuj, DOE, on Thursday, June 10, 2010, and forwarded to lab solicitation participants on Friday, June 11, 2010.

Thursday, June 3, 2010, the lab representatives used the rank ordered list developed by the independent reviewers to guide the representatives' process of assigning projects to each of their respective labs. The representatives estimated budgets for each of the projects, and then, starting at the top of the rank-ordered project list, worked down the list, assigning projects to each of the laboratories until the funding was exhausted. At the conclusion of the two-day project selection and assignment process, 24 projects (eight projects for each of the three labs) had been selected, and technical expert teams had been matched to the selected projects—one day ahead of schedule. There are additional projects and technical expert teams in back-up, prioritized lists should some of the selected projects or technical expert teams drop out as the process moves forward.

3.0 Partner Selection

A key criteria in assigning Partners to the three labs, was whether the Partners identified a preference for one of the labs. Another criteria was a coarse estimate, made by the labs, of the cost of providing technical assistance to each of the Partners. Partners were first assigned to their preferred labs. Remaining Partners were split between the labs with an emphasis on equalizing costs across the labs.

PNNL is working with the following eight Partners going forward.

- **Grand Valley State University (GVSU), New Construction, Allendale, MI, Climate Zone – 5A – Cool – Humid, Portfolio – 4.9 million square feet:** GVSU has initiated design of a new library, the Mary Idema Pew Library, conceived as much more than a repository for books but as a “Learning and Information Commons.” The 140,000 square foot building, with five occupied floors and a mechanical room as a basement, is likely to include energy savings measures recommended by CBP technical experts. The Pew Library is being designed to meet Platinum LEED standards and simultaneously meet strict budgetary requirements to minimize life cycle costs. GVSU expects the Pew Library to be a focal point on campus and help with recruitment, retention and improve the quality of life of its students.
- **Home Depot, New Construction, Rocklin, CA, Climate Zone – 3B – Warm – Dry, Portfolio – 235 million square feet:** The Home Depot, the second largest retailer in America with 2200 retail stores, represents an opportunity to have a major impact on future energy use in the commercial sector. The company has committed to work with CBP on design and construction of a new store in Rocklin, California, to achieve a 50% reduction in energy use. The store is in the initial design stage with construction to start November 2011 and to be complete by August 2012, well within our CBP ARRA requirements. The timing of the design offers an excellent opportunity to influence their use of energy efficient measures.
- **Smart Grid Development (SGD), New Construction, North Kingstown, RI, Climate Zone – 5A – Cool – Humid:** SGD is a real estate development company located in Rhode Island with a focus on sustainable energy building construction and real estate management. They are planning to build a zero net energy building on property they own with half of the 80,000 square building devoted to mixed use applications and the rest potentially used for education related to green building construction, energy efficiency measures and their application as well as used for energy use information seminars. SGD has retained Jacobs Engineering to be part of its design team.
- **Government Services Administration (GSA), Pease Federal Building, New Construction, Portsmouth, NH, Climate Zone – 6A – Cold – Humid, Portfolio – 12 million square feet:** The GSA is strongly considering committing to a partnership with DOE to construct the Pease Federal Building in Portsmouth, New Hampshire, as a zero net energy building (or highly efficient new construction project). The new building, which has been funded, will have approximately 60,000 square feet and serve as an exemplary building for future GSA construction in the New England area.

- **Job Corps Sierra Nevada Cafeteria, New Construction, Reno, NV, Climate Zone – 5B – Cool – Dry, Portfolio – 28.8 million square feet:** The Job Corps is committed to work with CBP to construct a highly energy efficient new cafeteria at its Reno facility. As a residential facility, a Job Corps cafeteria operates 365 days a year and is a heavy user of energy and water. With 123 Job Corps facilities across the country and over 24 million square feet, the opportunity for replication is significant. In addition, there will be opportunities to demonstrate to the broader food service industry.
- **Fort Bragg, Retrofit, Fort Bragg, NC, Climate Zone – 3A – Warm Humid, Portfolio – 33.7 million square feet:** Fort Bragg, located in North Carolina, is one of the largest military bases in the world and growing significantly. It has over 4,400 permanent structures with almost 34 million square feet. It is a leader in Army efforts to reduce energy use at Army installations and also to increase the use of renewable resources. Bragg currently has a building renovation nearing completion and could use help in evaluating energy measures deployed there and is also assessing offering an existing building requiring a retrofit to use as a CBP project. Bragg has suggested working with several other Southeastern U.S. Army bases to help inform others of how to work within a military environment to implement highly energy efficiency retrofits. The Bragg project represents an opportunity for DOE to have an influence over the large amount of ongoing and future DoD construction.
- **Hines a/a/f Morgan Stanley, Somerset Data Center, Retrofit, Somerset, NJ, Climate Zone – 5A – Cool – Humid, Portfolio – 8 million square feet:** Hines acts as the facilities manager for Morgan Stanley, the financial company and has proposed a relatively new Morgan Stanley data center in Somerset, New Jersey, as a CBP retrofit project. Since a financial data center includes large and energy intensive electrical equipment with redundant requirements, this will afford interesting energy reduction opportunities and challenges. Hines also works with PNNL on the ongoing core CBP Program with a retrofit office building in Manhattan. The data center will not be completely fitted out and affords CBP with an opportunity to help evaluate energy efficient options for completing the building as well as provide information for both future retrofit and new Morgan Stanley data centers.
- **General Services Administration, Pacific Rim Region, Climate Zone – 3 – Warm and Humid, Portfolio – 350 million square feet:** As the federal landlord for many U.S. government organizations, the GSA provides workspace for over one million federal employees. The goal of this project is to test and evaluate customer satisfaction with best lighting practices to ensure their uptake across the myriad GSA tenants. High levels of customer satisfaction will ensure lighting best practices are implemented and the energy savings are actually attained.

PNNL initially had nine Partners. Two Partners that were assigned to PNNL subsequently left the program. One of these was nonresponsive to requests for follow-up information and was replaced by Hines in the above list. The process for the replacement is described later in this report. Another Partner, Jakeland, dropped out after going through the initial face-to-face meeting with the technical team. Jakeland indicated that the cost share would be too great a burden. PNNL did not replace Jakeland and is going forward with eight Partners, the same number as the other labs.

4.0 Technical Team and M&V Contractor Selection

The three labs also agreed to do joint solicitations for technical teams and a solicitation for third-party measurement and verification (M&V) contractors. LBNL took the lead in hosting the solicitations web site and initial interactions with those firms submitting proposals. The solicitations were reviewed and scored by PNNL, LBNL and NREL technical staff in Golden, Colorado, during the same week in early June as the new Partners proposed projects were reviewed. Preliminary decisions were made as to whether the proposals were “strong,” “good but lacking in one or more areas,” and “weak” or “non-responsive.”

Once all the Partner reviews were completed, the three labs tentatively assigned technical teams to each of the Partners. These assignments were made on the basis of technical requirements (for example, AEC with Fisher-Nickle, a kitchen consultant, was paired with Job Corps doing a new cafeteria), existing relationships (Arup is currently working as a subcontractor for Grand Valley State University and so was selected to also help with our CBP support), or geographic proximity (Veridian is located very close to GSA Region 1 in Boston).

Over the weeks following the Golden meetings, the proposed projects were reviewed and calls made to clarify the proposal and ensure the status was understood. One of the most critical points of these calls was to confirm financing and construction schedules to ensure that the projects would meet CBP ARRA requirements to be complete by August 2013.

M&V contractors were selected following a similar process as the technical teams. Responsive proposals were ranked “strong,” “good,” or “weak,” and strong candidates were assigned to new Partners. There were a few companies that proposed both as technical team leads and as M&V contractors, but the labs were careful to keep the M&V contractors as disinterested third parties for the Partner/technical team. Specific assignments to Partners were made by each lab, individually.

PNNL’s ARRA funded new Partners that are going forward, their assigned technical team leads, and their assigned M&V contractors are shown in Table 3.

Table 3. PNNL ARRA CBP Partners and Assigned Technical Team and M&V Contractors

Partner	Technical Team	M & V Team
Grand Valley State University (GVSU)	ARUP	NorthWrite
Home Depot	WD Partners	McKinstry
Smart Grid Development (SGD)	AEC	McKinstry
Sierra Nevada Job Corps	AEC	Efficiency Solutions
GSA – Region 1	Veridian	NorthWrite
Hines a/a/f Morgan Stanley	CH2MHill	NorthWrite
Fort Bragg	Internal	Internal
GSA – Lighting Project	Internal	Internal

The selection of two of the contractors in Table 3 did not follow the above protocol for contractor selection. WD Partners has worked for several years as Home Depot’s preferred design contractor. Since they were up to speed with Home Depot’s management team, their construction needs, and goals, as well as their energy efficiency viewpoints, it was considered cost-effective to use WD Partners for the CBP technical team support contractor as well. This was discussed with Home Depot, who enthusiastically supported the use of a known contractor. The initial M&V contractor selected for the Sierra Nevada Job

Corps project was not responsive to PNNL's requirement to have contracts in place by the end of FY 2010. As a result, negotiations were conducted with Efficiency Solutions , a company providing PNNL with excellent M&V support in the Non-ARRA CBP projects. Both WD Partners and Efficiency Solutions signed Basic Ordering Agreements with PNNL, enabling PNNL to rapidly place any future required work orders with either firm.

5.0 Partner Replacement Process

PNNL found one of its new Partners to be unresponsive and required replacement. To choose a replacement, several criteria, similar to those used in the ARRA multi-lab solicitation, were selected. These included:

- Timeliness of proposed schedule – including the likelihood the proposed building could be completed by August 2013, the ARRA deadline,
- Impact of the proposed project,
- Innovation of the proposed project, and
- Quality of the proposed technical and management team.

The proposals with the next highest scores were reviewed and ranked from one to ten against the four criteria. One candidate was Hines, as agent to the financial firm, Morgan Stanly, with a data center to retrofit in Somerset, New Jersey. The other candidate proposal was to develop a Green Energy Workshop in Kentucky. Hines scored 30 of possible 40 points. The Green Workshop scored 17. As a result, Hines became PNNL's newest CBP Partner.

6.0 Project Familiarization

In order for the technical teams to write a Partner specific proposal, we felt a face-to face meeting was needed for any questions and issues to be resolved. During August, meetings were held with all technical teams and Partners at the Partner's location, whenever feasible, to introduce the parties, provide a framework for CBP and the new ARRA project, and allow the technical teams to ask questions about the proposed projects. A meeting was held with Jakeland in Kentucky before they left the program. These meetings were extremely valuable in providing the teams with the project specific information needed to write and cost a good proposal.