



The Solutions Network

Rochester, New York

The BPA Option & UESC Success Stories

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Overview



- **Background on BPA**
- **BPA's role in Energy Efficiency**
- **Federal Program History**
- **Examples of BPA – UESC Relationships**
- **Navy Project Case Study**
- **Overview of the BPA Option**
- **Contact Information**

BPA is Unique



- **BPA is a self-funded federal agency AND a wholesale electric utility**
- **BPA is the only self-funded federal power marketing administration in the US Dept of Energy**
- **BPA is NOT a federal corporation OR an independent agency (like the USPS or TVA)**
- **BPA 2004 Mission Statement:
BPA is a “public service organization” and a “commercially successful business with public responsibilities”**

BPA – Involvement in Energy Efficiency



- **1981 – Congress directed BPA to invest in energy conservation as its highest priority source of new power supply**
- **1981-2004 – BPA spends >\$2 billion on energy conservation investments, reducing load by 7,884,000 MWh/year**
- **1995 – Other fed agencies begin to request reimbursable project support from BPA**
- **1996 – Congress provides direction to BPA allowing BPA to provide reimbursable project support to other federal agencies nationwide & overseas, including facilitation of third party non-recourse project financing**

BPA Federal Program History

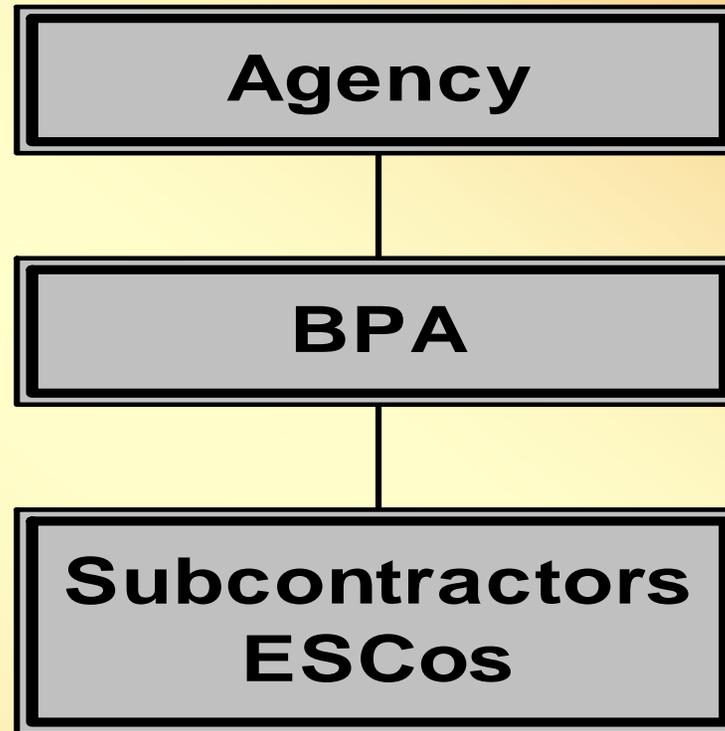


- **June 1995 – First technical support provided to agencies**
- **January 1998 – First project financings facilitated for agencies**
- **2003, 2004 – About \$15M annually of reimbursable technical support provided (96-98% pass through to contractors)**
- **2003, 2004 – About \$40M to \$60M annually of project financing support provided**

BPA - UESC Relationships Example #1



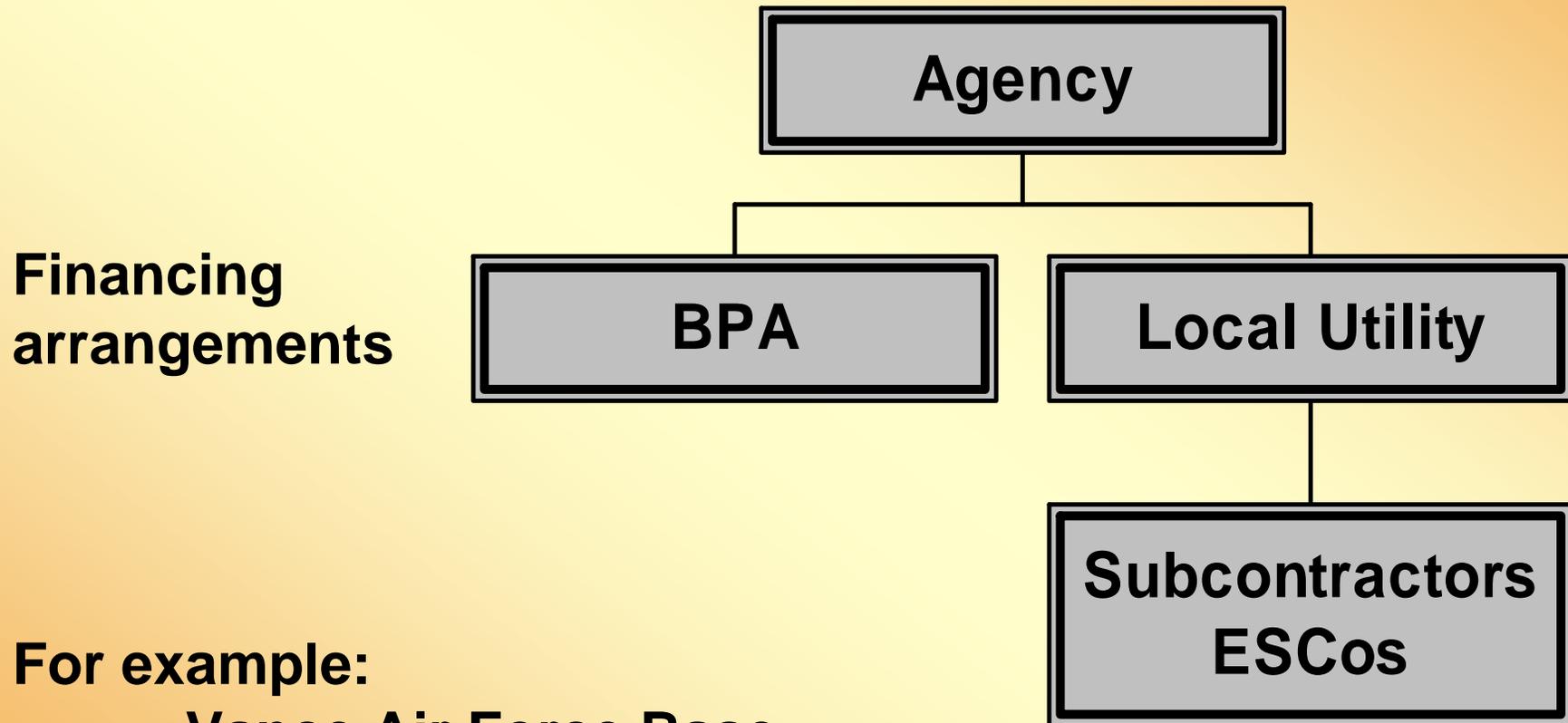
Financing
arrangements &
contracting



For example:

Puget Sound Naval Shipyard
McChord Air Force Base
Naval Postgraduate School

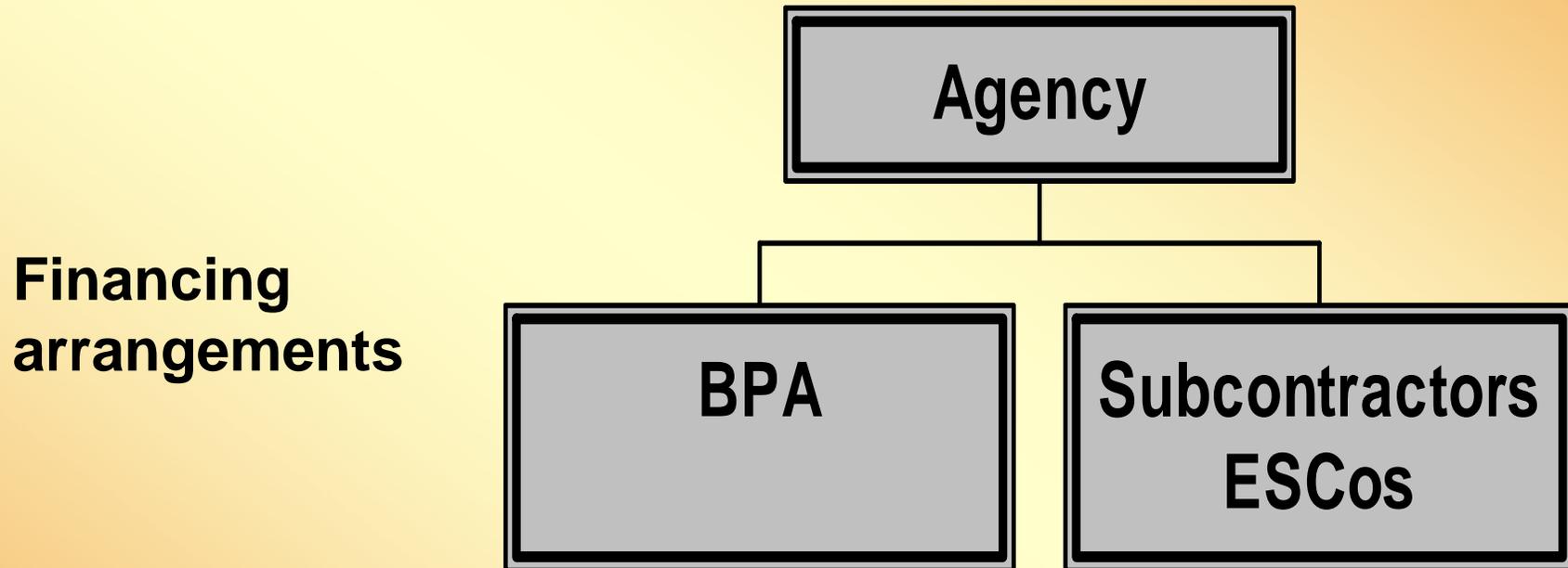
BPA - UESC Relationships Example #2



For example:

Vance Air Force Base
Food and Drug Administration,
National Center for Toxicological Research

BPA - UESC Relationships Example #3



For example:

GSA, Pacific Rim Region

DOE Thomas Jefferson National Accelerator

Forest Service, Northern Region

West Coast Navy- BPA Relationship:



- **BPA and the Navy have an ongoing utility energy services contract (UESC) for west coast Navy facilities not provided with energy efficiency services by the local utility or where the local utility welcomes BPA support to a project in their utility service area.**
- **This relationship is established in a Basic Ordering Agreement (BOA), a contract used by the Navy to secure energy efficiency and related services from utilities in defined service areas. The BPA service area is its wholesale power sales region, the western USA.**
- **BOA utilities act as prime contractors for the Navy**
- **BPA is the only federal utility with which the Navy has a BOA.**
- **The Navy implements an active energy efficiency program with BPA through the BOA.**

BPA Services under the BOA:



BPA provides all or any of the following services under the Navy BOA:

- **Energy audits, engineering and project development support**
- **Procurement and project management**
- **Financing (facilitation of private source funds)**
- **Tapping other sources of funds (utility or state incentives or end-of-year money)**

Original Basic Ordering Agreement: 1999 - 2003



- **The first five years applied to Navy bases that BPA serves retail in the Puget Sound area of Washington State**
- **Fourteen delivery orders were implemented (over \$10,000,000) for bases at Bremerton and Bangor, Washington**

Renewed Basic Ordering Agreement: 2003 - up to 2007



- BPA is now more broadly defined as a utility that provides electricity on a wholesale level to any location in the western power grid
- 15 months into this new BOA, the Navy has issued fifteen delivery orders totaling about \$15,000,000.
- Services are provided by BPA only when the retail electric or gas utility gives BPA permission to work in its service territory
- BPA is delivering projects for the Navy in both the Pacific Northwest and in California, where the local utility does not have a program of energy efficiency support to federal agencies, or where the local utility cannot offer financing support

Example of a Financed Navy project (1): financial statistics



- **\$ 2,500,000 total cost for lighting retrofits at the Bremerton Naval Complex**
 - **BPA hired three lighting contractors and a disposal contractor; BPA also direct purchased (in bulk) some of the needed equipment and measures**
 - **\$1,000,000 was financed through BPA at a low interest rate**
 - **Another \$939,000 in utility incentives were provided by BPA, and \$800,000 in Navy year-end money was applied for and obtained – the mix of funds allowed for an enlarged project scope and the buy down of some project costs**

Example of a Financed Navy project (2): benefits to the Navy



- **Navy energy and cost savings:**
 - **7,874,100 kWh at \$0.038/kWh = \$300,000 year**
 - **1.7 MW of peak load reduction**
 - **Improved lighting quality and productivity**
 - **Fewer fixtures and components, resulting in reduced maintenance costs**

Overall Program Advantages to the Navy (1): project flexibility



- **Projects must have energy efficiency objectives. Benefits can, however, include a mix of:**
 - **reducing utility usage and costs**
 - **fuel source optimization**
 - **repairs to base infrastructure**
 - **improved metering and monitoring**
 - **reduced maintenance costs**

Overall Program Advantages to the Navy (2):

financing/procurement flexibility



- **The BPA financing option provides flexibility to the Navy**
 - **It is an alternative to relying on appropriations alone (MILCON and ECIP)**
 - **It allows for the Navy to add end of year (EOY) funds to financed projects, in order to:**
 - » Expand project scope, or
 - » Reduce the amount that is financed
- **BPA uses its own contracting authorities to purchase goods & services (which can be more convenient and efficient than using the FAR)**

Ongoing Projects



- **BPA has procured and managed Resource Efficiency Managers (REMs) for three Puget Sound area Navy bases – REMs have proven very effective in identifying energy conservation opportunities and helping in project implementation**
- **One significant new project will replace High Intensity Discharge (HID) lighting in warehouses and industrial areas to gain better lighting quality and controls – this will be a state-of-the-art innovative and creative project**
- **Several projects involve upgrading energy management control systems (EMCS) to provide integrated metering, monitoring, and centralized improved control of heating and cooling**
- **Another new project will employ ground source heat pumps to replace electric heating coils, using Puget Sound as a heat source**

A Note about BPA as a Utility



It can be helpful to think of BPA as:

- 1. A wholesale electric utility providing firm power in the Pacific Northwest**
- 2. A wholesale electric utility providing non-firm or surplus power in the western United States power grid (the Western Electric Coordinating Council region)**
- 3. A nationwide and overseas energy efficiency utility (all fuels) just for federal agencies**

Why BPA provides Federal Project Support



- **To foster & promote the efficient use of energy resources**
- **To do public good, to promote a light environmental footprint**
- **To bring benefits to the Pacific Northwest**
- **BPA is NOT driven by profit, monetary awards, or program growth objectives**

The BPA Option



BPA is committed to:

- **Support FEMP and “Greening the Government” goals**
- **Act as a catalyst, facilitator and aggregator**
- **“Make a Difference” for federal agencies**
- **Help overcome barriers to project implementation**
- **“Grow the Pie” for private businesses**

What BPA Does



- **Perform Government functions (serving as an extension of the ordering agency's staff)**
- **Provide support on an actual costs only, cost reimbursable basis**
- **Provide support only where project stakeholders welcome BPA participation**

When Does BPA Respond?



- **When conventional options are not economic**
- **When conventional options are not available or viable**
- **When requested by project stakeholders (agency, local utility and/or energy services company)**

Types of Federal Project Support



Technical support (in western USA)

- Project definition
- Metering, controls
- Bulk purchasing
- Project implementation
- M&V
- Rebate management

Financing support (nationwide)

- \$100K to \$100M per project

Combined project financing and technical support

- In the western USA only

A Flexible Option



- **Project content can include new construction, fuel switching, irrigation, CHP, wind, etc., as long as the core content is energy efficiency, renewables, water conservation, etc.**
- **Bundling of different measures can happen (e.g., energy/water efficiency with renewables or distributed generation)**
- **Repayment sources can vary (can include o&m savings)**
- **Payment terms are negotiable (usually 5-15 yrs)**
- **Can mix financing with other funds**

How BPA Implements Financings



- **Agency needs are aggregated across multiple agencies and types of projects**
- **The pools of financing requirements are competed among financiers**

BPA

Facilitated Private Source Financing-

How it Works:



1. Agency issues order to BPA for project financing. Agency pledges future payments to BPA.



5. Agency makes the periodic payments assigned to the Financing Partner by BPA as specified in the order to BPA from the agency.

2. BPA locates best financing offer and executes Funding Agreement with Financing Partner. BPA also signs an Assignment of Claims with the Financier--assigning BPA's claim to the payment stream to the Financier.

Financier



3. BPA's Financing Partner provides capital to BPA in exchange for the payment stream assignment (they buy the payment stream).

4. If BPA is implementing and financing, BPA pays suppliers, contractors, utilities, energy services companies, etc.

How to Access BPA



- **BPA receives orders through site specific, regional and national BOA's, Memorandums of Agreement, intergovernmental contracts, and interagency agreements**
- **Civilian agencies and DOD may access BPA as a federal agency providing utility services under FAR 41**
- **DOD installations may access BPA as a utility under 10 USC 2865(d)**
- **Civilian agencies and DOD installations may also use 42 USC 8256(c) to access BPA**
- **Individual agencies make their own choices on how to access BPA based on their counsel & agency policies**

Typical Relationships



- Agency orders and obtains financing from BPA
- Agency implements the project using a GSA area wide or a BOA with the local utility, or
- Agency implements with an ESCO using the GSA FSS or an agency procurement
- In the western USA, agencies may order financing and implementation from BPA; if so, BPA accesses the local utility or competitively procures an ESCO

How to Learn More - Contacts



- **Mark Ebberts, Federal Financing Specialist, BPA Energy Efficiency, Portland, OR; 503-230-3971; fax: 503-230-5147; mhebberts@bpa.gov**
- **Frank Brown, Federal Account Representative, BPA Energy Efficiency, Seattle, WA; 206-220-6774; fax: 206-220-6805; febrown@bpa.gov**
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