



Business Case Study:  
*Bank of America*

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## Background

- Type of Business: Financial
- Location: Various
- Size: 130,000+ employees worldwide, 17.8 million square feet (buildings in question)
- Contact: Brian Jarnutowski, Corporate Real Estate  
1 S. Van Ness, San Francisco, CA 94103  
Phone: (415) 241-3665  
E-mail: brian.jarnutowski@bankofamerica.com  
Website: www.bankofamerica.com

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## Program Description

Bank of America in 2001 took the initiative to reduce its energy demand in order to help the State minimize the potential of rolling blackouts. The goal of its comprehensive energy conservation and efficiency program was to reduce electrical consumption by 10 to 15 percent when compared with 2000 energy consumption.

Referenced in Business Guides:

- #1, “Reduce Energy Use in Commercial Facilities Through Conservation Measures and Efficiency Improvements ”
- #3, “Target Business Employees for Energy Conservation in the Workplace”

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## Plan

Corporate Real Estate staff and a third-party full service facilities management vendor used Bank of America’s real estate financial tracking system to gather energy cost data for all Bank of America’s real estate in California. The cost data was broken down into energy cost per square foot for each property in the portfolio. Properties that fell into the high consumption category were then further analyzed to determine where and why the consumption was above the benchmark. The financial impact of various initiatives was evaluated concerning cost, return on investment and risk/impact on the business operations.

The audits identified energy-savings opportunities that included many no cost initiatives as well as some capital projects. The conservation projects were grouped under the program title “2001 Power Down Initiative.” Retrofit

projects were chosen based on their simple payback, energy-savings potential and operating expense reductions. Projects were scheduled for implementation according to their potential impact on energy consumption and funding availability. Retrofit projects for HVAC were scheduled for implementation during non-summer months.

Corporate Real Estate and a third-party full service facilities management vendor planned and implemented projects. The vendor, company project managers and engineering staff oversaw projects. The goal was to reduce energy consumption by 10 to 15 percent over the 2000 baseline.

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## Programs: Conservation

Most of the following steps were part of Bank of America’s 2001 “Power Down Initiative,” which was communicated to all associates through letters, e-mails, voicemails, website articles, flyers, meetings and a corporate newsletter.

- ✓ **HVAC:** Building engineers raised thermostats’ set points by as much as 5 degrees to the range of 74 to 78 degrees F. Estimated energy savings of 8 percent to 10 percent of bank total use.
- ✓ **Lighting:** Building engineers did the following:
  - Turned off rooftop bank signs on high-profile buildings.
  - Turned off lights and used natural light in atriums during the day.
  - Reduced lighting during evening hours where possible through review of set times on automated systems.
  - Installed motion and timing devices at various locations throughout the facilities portfolio. The engineering staff was authorized to install motion sensors at various locations on an as-needed basis in strategic locations.
  - Lighting contractor turned off banking center signage at 1,000 centers and facilities.
- ✓ **Other equipment:** Turned off fountain pumps and convenience escalators. Energy and cost savings were not quantified separately.

✓ **Energy-management system:** Installed new automated EMS and upgraded existing EMS. In some cases this allowed for remote monitoring and control.

✓ **Controls:** Installed energy-efficient HVAC controls, variable frequency drives, motors and lighting controls where needed.

✓ **Employees:** Turned off task lights, PC monitors, printers and copy machines when not in use.

### **Programs: Efficiency**

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✓ **HVAC:** Replaced HVAC in select banking centers where systems were obsolete or where maintainability, reliability and efficiency could be improved. The HVAC and EMS energy cost savings were combined because the projects were integrated. The savings also combine savings from increased maintainability and reliability. Total cost was \$6.5 million. Annual energy savings was 1,900 MWh (1-2 percent). Annual cost savings was \$250,000.

### **Programs: Employee Outreach**

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✓ **Incentives:** Offered low-interest financing to bank associates for energy-saving home improvements. The outreach program cost \$83,000.

### **Budget and Finance**

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Budget was \$141,500 for the Power Down conservation program and \$6.5 million for installed efficiency projects. Programs were self-financed. Turning off banking center signage at 1,000 centers and facilities cost was \$58,500.

Bank of American received the following rebates:

- \$95,560 rebate from LADWP (for the replacement of two chillers at a cost of \$2.6 million and

annual estimated energy savings of 876,700 kWh).

- \$7,165 rebate from Pasadena Water and Power (for a banking center HVAC replacement that resulted in estimated annual savings of 60,000 kWh. The rebate was from PWP's general energy efficiency rebate program).

### **Results**

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Energy costs were tracked year over year at each property through the bank's financial tracking system. The costs were then used to figure out energy consumption. Some lighting not was metered so energy and cost savings were not quantified separately.

Bank of America reduced its overall electrical use by an estimated 15 million kWh in 2001. Raising thermostat settings and initiating energy conscious practices such as turning off lights and signage contributed the most savings. Retrofit projects significantly reduced bank operating/maintenance costs. Turning off overhead outdoor signage produced the following results: Estimated energy demand savings of turning off overhead outdoor signage was 620 kW; estimated energy savings over four months was 785,000 kWh; and estimated cost savings at \$0.12/kWh was \$94,200.

Winner: Flex Your Power Energy Conservation Award (2002)

### **Lessons Learned**

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Bank of America realized that it needed to have a more robust system for tracking electrical usage and that the database should also include historical data. The company is in the process of upgrading its tracking system.