## FIBP

The Federal Industrial Boiler Program (FIBP) assists its clients to increase energy efficiency, reduce nitrogen oxide (NO<sub>x</sub>) emissions and extend the useful life of existing heating and cooling systems. FIBP ensures that energy-efficient and environmentally responsible technologies are considered when replacements or modifications to commercial/industrial heating and cooling plants are under review.

Whether it involves an isolated Canadian Forces Base, an airport, a large office complex or a hospital, FIBP can develop a site-specific strategy that will reduce energy costs.

FIBP's technical and managerial services are offered on a fee-for-service basis to federal, provincial and municipal governments, crown corporations and the private sector.

# **FIBP Services**

#### **Retrofit Surveys**

• To assess the general condition, operating performance and efficiency of heating and cooling equipment.

## **Turnkey Project Management**

 Including preparation of technical specifications, evaluation of bids, on-site project management, commissioning, performance testing and final acceptance for heating, cooling and micro-cogeneration installations.

#### Non-Destructive Examination

 To determine remaining life expectancy of equipment (i.e. ultrasonic thickness testing, x-rays, dye penetrant...)

## **Cogeneration Feasibility Studies**

- Cogeneration is the production of two forms of useful energy from the same fuel source, such as the generation of electricity and the recovery of waste heat for space and water heating.
- Factors are examined to determine the economic and technical feasibility of cogeneration at a given site.

## Life Cycle Cost Analyses

LCC is an in-depth examination to determine the most cost effective option for heating/ cooling system retrofits, expansions or replacements. The options studied are analyzed, compared and ranked as to their long term benefit and return on investment. FIBP's engineers, technicians, and technologists provide over 120 years of combined experience.

Since 1991, FIBP has helped the Federal Government reduce:

energy consumption by 1400 TJ NO<sub>x</sub> emissions by 140 tonnes CO<sub>2</sub> emissions by 85 kilo tonnes



## **FIBP Success Stories**

*Vineland Research Station*: The FIBP conducted a cogeneration feasibility and life-cycle costing (LCC) study for Agriculture and Agri-Food Canada's Vineland Research Station in southern Ontario. Based on the results of the study, FIBP was contracted to implement the project which included the design, supply, installation and commissioning of a 260 kWe cogeneration system, an absorption chiller and two new boilers.

The project saves the client 100,000/year and reduces the CO<sub>2</sub> and NO<sub>x</sub> emissions by 40% and 60% respectively.

#### Canadian High Commission,

*Islamabad, Pakistan*: The FIBP conducted a site survey of the heating/cooling plant, developed options for a mid-life retrofit and conducted a life cycle cost analysis (LCC). As a result, FIBP has been contracted by the Department of Foreign Affairs and International Trade to undertake the engineering, prepare the specifications and supervise the installation of direct-fired chillers, hot water heaters and a major retrofit of the air conditioning system.

*Correctional Service Canada*: As part of their Sustainable Development Strategy, CSC has hired the FIBP to compile a detailed inventory of all hydrocarbon fuelled devices in twenty of their institutions. This will lead to cost effective compliance with the National Emission Guideline for Commercial/Industrial Boilers and Heaters.



#### Contact us at:

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FIBP PROMOTING ENERGY EFFICIENCY AND ENVIRONMENTALLY RESPONSIBLE TECHNOLOGIES

Natural Resources Canada Canada