Why Pollution Prevention (P2)?

As Benjamin Franklin once said, “an ounce of prevention is worth a pound of cure.” Business and environmental leaders today operate on this simple and powerful truth: it’s often cheaper to prevent the creation of pollution than to clean it up afterwards or pay for control, treatment, and disposal of waste products. For businesses, all forms of waste represent inefficient expenditures. If a business can reduce or eliminate such expenditures, that immediately translates to the bottom-line, reducing operating, regulatory, and liability costs.

P2 can help promote innovation and resource use efficiency, which in turn can provide enduring benefits and help businesses save money and reduce risks to public health and the environment. It can also give businesses a market advantage by showing their community and customers that their business is a responsible environmental steward.

How Financing Tools Can Help Small Businesses

P2 projects often have costs (e.g., new equipment, contractor services) that require cash disbursements upfront, with potential savings (avoided costs) accruing over time. For small and medium-sized enterprises (SMEs), these projects must often compete for limited resources with other internal business priorities that are essential for revenue generation. Small businesses may not be used to borrowing money from external sources or may not realize that it’s possible to do so at affordable terms.

Some lenders can make loans for P2 investment more accessible to SMEs by using a variety of techniques to lower or spread financial risk in ways that enable them to reduce the borrower’s cost of financing (e.g., with lower interest rates and/or longer payback periods to reduce the size of regular loan payments). P2 financing tools can make small business loans more attractive to lenders. Small businesses can contact their lenders and state P2 programs for more information on options for financing P2 projects.

Landscape of P2 Financing Options

- **Commercial Financing**
  - Traditional Lending: Commercial banks often have special lending programs for small and medium-sized businesses.
  - CDFIs: Community Development Finance Institutions (CDFIs) often have low interest loan programs to support small business P2 investments.
  - Impact Investing: New types of investors are providing affordable finance to businesses supporting P2.

- **Government Resources and Programs**
  - State P2 Programs: Many state environmental agencies have P2 programs which may be able to help connect businesses with P2 financing assistance or information.
  - State Government Financial Incentives and Resources: Governments have many financial incentives and resources available for businesses.

P2 Financing Resources

- Green Banks, such as: Green Bank Network members [https://greenbanknetwork.org](https://greenbanknetwork.org), work with private-sector investors to create low-cost, long-term financing to maximize the use of public funds.
- Community Development Financial Institutions (CDFIs) are private institutions that deliver affordable lending. By financing community businesses, CDFIs spark job growth and retention in hard-to serve markets. See [https://ofn.org/cdfi-locator](https://ofn.org/cdfi-locator) to find your local CDFI.
- The CDFA State Financing Program Directory catalogs over 350 development finance programs offered by states. See [https://www.cdfa.net/cdfa/cdfaweb.nsf/pages/states.html](https://www.cdfa.net/cdfa/cdfaweb.nsf/pages/states.html) for info on special state financing programs for businesses.

P2 Financing Tips

- Clearly assess operations and maintenance (O&M) costs, project financial savings, and calculate return on investment (ROI) to establish for lenders it is a wise investment.
- Be prepared to clearly outline the environmental benefits of the pollution reduction that would result.
- Talk with your state’s P2 program [https://www.epa.gov/p2/p2-resources-business#tech](https://www.epa.gov/p2/p2-resources-business#tech), as they may be able to provide examples of how others have approached the P2 improvement. This can be used to establish to potential lenders that the approach has been implemented by others and that it works. This can help to reduce uncertainty and answer lenders’ questions.
Case Study: Reducing Perchloroethylene with Craft3 Small Business Loans

In EPA's Region 10, Craft3 (a regional nonprofit CDFI) makes loans to strengthen economic and ecological resilience in Oregon and Washington. Several of Craft3’s loans have helped small and medium-sized businesses to reduce their pollution output. The loan terms are designed to help recipients who may not have otherwise been able to access traditional financing; the typical loan terms are:

- Most loans fall between $25-35K in size
- Fixed rates starting at 8.00%
- 2% fees plus closing costs
- 3-7-year terms, with longer amortizations possible
- Repayment frequency on a case-by-case basis
- Simple interest
- Both secured and unsecured loans

In 2019, Craft3 provided small business loans to two dry cleaners to help them transition from perchloroethylene (PERC) dry cleaning to professional wet cleaning as a less toxic alternative. The equipment that they purchased using the loan generally costs $50-60,000. This loan, coupled with reimbursement funding provided by the Washington State’s Department of Ecology’s Equipment Replacement Voucher Program, allowed these businesses the financial means to transition away from this hazardous chemical. The switch to professional wet cleaning eliminates the cost of disposing of used PERC, eliminates the cost of purchasing PERC solvent product, reduces exposure to PERC, and eliminates the risk of aging machines leaking and contaminating soil and groundwater. Using the loans from Craft3, businesses in Washington State have successfully been able to purchase equipment to make the switch to professional wet cleaning. For further information, a feasibility and cost comparison was conducted and published in the Journal of Cleaner Production (see https://doi.org/10.1016/j.jclepro.2010.07.015) that was used as a resource to justify the energy and water savings early on in the effort.

Other P2 Projects Ripe for Financing

**Solvent distillation.** In some industries, distilling solvents can present an alternative to directly disposing of hazardous waste. This requires an investment in distillation equipment. In 2018, Canyon Creek Cabinet Company (a cabinet manufacturing business) worked with the Washington State Department of Ecology to develop a site-specific return on investment (ROI) spreadsheet to analyze current costs, capital investments, and dollars saved. Ultimately, the company invested ~$40,000 for new distillation equipment, reduced acetone waste generation by 90%, and achieved an ROI of 0.6 years.

**Plural component spray paint.** Businesses like those in aerospace and automotive industries use spray guns to apply premixed paint for client’s specific color requests. Premixing paint normally leads to large volumes of unused paint that ultimately gets disposed of. By switching to a plural component system, which mixes the paint directly at the tip of the spray gun, companies can eliminate overmixing and drastically reduce the use of solvents for equipment cleaning. A plural component spray system is a substantial initial investment; one painting business in Washington State invested ~$500,000 to convert. Although, estimates showed that this was well worth the investment; an ROI of 1.5 years was achieved due to reduced labor, product purchases, and waste generation and disposal costs.

This resource is provided by the US Environmental Protection Agency’s P2 Program in partnership with state technical assistance providers.