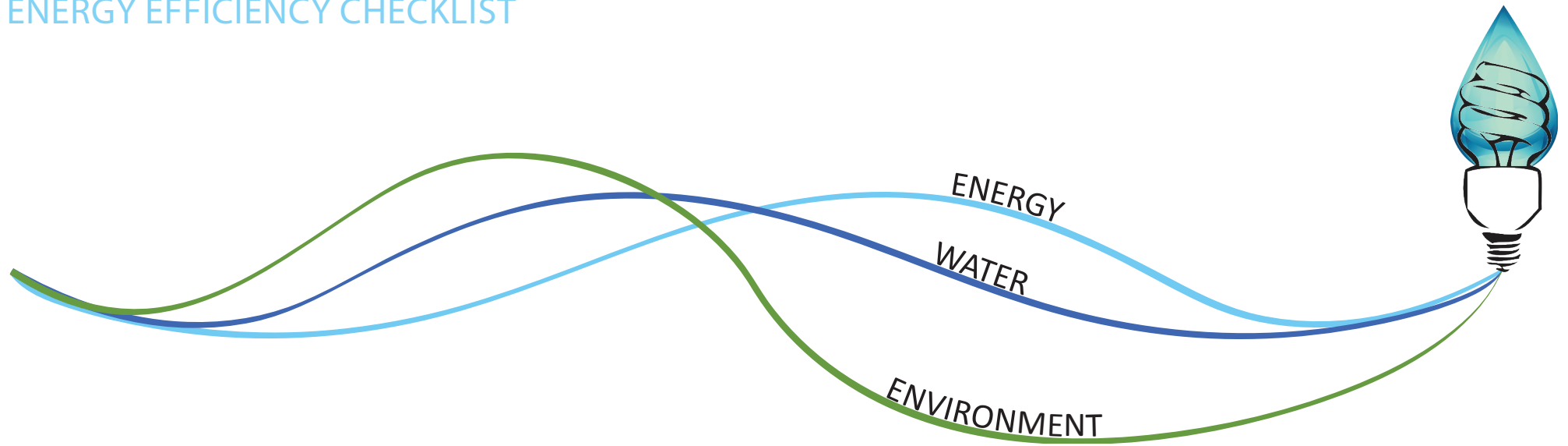


ENERGY EFFICIENCY CHECKLIST



WATER EFFICIENT FIXTURES

Once plumbing fixtures are installed in a building, little thought is given to upgrading them. Water is cheap, but sanitary water use accounts for a significant amount of non-recyclable water use in industrial facilities. Old fixtures are inefficient in terms of water use, and leakage occurs losing thousands of gallons of water per year. Older toilets manufactured before 1992, when the Energy Policy Act mandated water efficient toilets, use up to 3.5 gallons per flush (gpf). Existing fixtures can be upgraded with retrofit equipment for greater efficiency, such as low-flow, dual flush technology.

CAPITAL COST:

- Dual Flush Toilet Retrofit Kit = \$125

ANNUAL ENERGY SAVINGS:

- Toilet = 18 gal
- Faucet Aerator = 5 gal

PAYBACK:

- Toilet = 6 yrs
- Faucet Aerator = <1 yr

REBATES:

- 25% of Cost
- MN State Sales Tax Exemption

SOLAR HOT WATER HEATING

Solar water heating systems include solar collectors and storage tanks. There are two types of solar water heating systems: active, which have circulating pumps and controls, and passive, which do not. Solar water heating systems are designed to deliver hot water for most of the year. In winter, back-up systems may be needed as there may not be sufficient solar heat gain to deliver hot water so that a gas or electric booster is normally used to heat the water. Implementing water efficiency practices is recommended to minimize demand.

CAPITAL COST:

- \$5000 (Before rebates & credits)

ANNUAL ENERGY SAVINGS:

- \$276 / Yr

PAYBACK:

- 12 Yrs (9.5 Yrs with Rebate)

REBATES:

- 25% of Cost
- MN State Sales Tax Exemption

VENDING MISER

The Vending Miser reduces the energy consumption of cold drink vending machines by using an occupancy sensor to power down the lights and compressor. A temperature sensor powers the machine back up as needed to keep drinks cold. The device is invisible to the user since the lights come on when an occupant is detected. Rebates for this device are available from the local utility.

CAPITAL COST:

- \$180

ANNUAL ENERGY SAVINGS:

- \$150 / Machine
- Savings of 30-50% of annual electricity costs of a refrigerated vending machine

PAYBACK:

- \$50-75 / Unit

REBATES:

- 1.3-2.4 Yrs