



The Hidden Energy Cost of School Beverage Vending Machines

A traditional cold beverage vending machine consumes an estimated 3000 kilowatt hours of electricity per year (kWh/yr). That translates to an average annual energy cost of \$313 per machine. Even more energy efficient machines still use between 1200 and 1500 kWh/yr. When multiplied over the total number of machines housed on school property, the electricity cost required to operate cold beverage vending machines amounts to a significant hidden expense for schools that should be subtracted from school beverage vending revenue and taken into consideration when deciding whether or not to renew a beverage vending contract.

Beverage Vending Machine Energy Costs ADD UP!

It is important to think about energy costs in terms of the total number of machines in a school building or a school district. For example, in 2011 it cost California schools \$424 per year to power just one traditional cold beverage vending machine. The following table illustrates how this cost adds up by school and district size annually and over an average beverage contract term of five years:

	Number of Vending Machines	Annual Electricity Cost per Machine (3000 kWh/yr)	Total Annual Electricity Cost	Total 5-Year Electricity Cost
Large High School	25	\$424	\$10,600	\$53,000
Mid-Size School District	120	\$424	\$50,880	\$254,400
Large School District	225	\$424	\$95,400	\$477,000

TAKE ACTION!

Cold beverage vending machines are governed by contracts and while machines typically remain beverage company property, absent a contractual provision to the contrary, schools pay for vending machine electricity costs. Schools can take the following action to reduce energy costs:

1. **PHASE OUT VENDING MACHINES ALTOGETHER** by not renewing existing contracts.
2. If a contract is renewed, **REDUCE THE NUMBER OF MACHINES ON SCHOOL PROPERTY.**
3. If a contract is renewed, **REQUIRE THE BEVERAGE COMPANY TO PAY ELECTRICITY COSTS.**
4. If a contract is renewed, **REQUIRE THAT ONLY THE MOST ENERGY EFFICIENT MACHINES ARE INSTALLED AND THAT OUTDATED MACHINES ARE REPLACED BY ENERGY EFFICIENT MACHINES OR RETROFITTED WITH ENERGY SAVING DEVICES.**



State by State Beverage Vending Machine Energy Costs

It costs \$313 on average to run one cold beverage machine for one year. Electricity rates vary widely from state to state. The following table contains the annual vending machine electricity cost for one vending machine using the 2011 average commercial electricity rate for each state¹:

State	2011 Commercial Electricity Rate per Kw/h (cents)	Annual Cost Per Machine (3000 kw/h)
AK	15	\$453
AL	10	\$312
AR	8	\$226
AZ	10	\$289
CA	14	\$424
CO	9	\$284
CT	16	\$466
DC	13	\$391
DE	11	\$321
FL	10	\$298
GA	10	\$300
HI	32	\$953
IA	8	\$240
ID	7	\$195
IL	9	\$261
IN	9	\$262
KS	9	\$266
KY	8	\$253
LA	9	\$256
MA	15	\$437
MD	12	\$345
ME	12	\$368
MI	10	\$311
MN	9	\$263
MO	8	\$248
MS	10	\$285

State	2011 Commercial Electricity Rate per Kw/h (cents)	Annual Cost Per Machine (3000 kw/h)
MT	9	\$274
NC	8	\$244
ND	8	\$227
NE	8	\$244
NH	14	\$423
NJ	14	\$412
NM	9	\$266
NV	9	\$271
NY	16	\$483
OH	10	\$290
OK	8	\$232
OR	8	\$245
PA	10	\$303
RI	13	\$380
SC	9	\$280
SD	8	\$233
TN	10	\$303
TX	9	\$271
UT	7	\$220
VA	8	\$236
VT	14	\$417
WA	8	\$225
WI	10	\$314
WV	8	\$242
WY	8	\$230

¹US Energy Information Administration, US Dept. of Energy, Average Retail Price of Electricity to Ultimate Customers by End-Use Sector, by State, Year-to-Date through February 2012 and 2011 (Cents per Kilowatthour), http://www.eia.gov/electricity/monthly/epm_table_grapher.cfm?t=epmt_5_6_b.