

Utility Infrastructure Investments and Cogeneration

The Negative Effect of Utility Infrastructure
Expansion Costs on Industrial Cogeneration
Projects

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Project Summary

Pennsylvania Cogeneration Projects

Project	Electrical Capacity	Investment	Fuel & Utility	Prevailing Elec Utility	Annual Savings/Cost Reduction
1	10 MW	\$13 million	Natural Gas/UGI	Met Ed	\$3 million
2	2 MW	\$3.3 million	Natural Gas/UGI	PECO	\$0.9 million
3	1 MW	\$1.2 million	Natural Gas/UGI	Met Ed	\$0.35 million

Highly Successful Projects With Small Infrastructure Upgrades

Project 4

- Small Food Processing Facility
- 2 miles away from nearest natural gas pipeline
- 4 MW Electrical Capacity, Propane and Fuel Oil
- Annual Energy Cost: \$1.72 million
- Pipeline Cost: \$1.6 million

	Electrical Capacity	Investment	Annual Savings/Cost Reduction	IRR
Without Pipeline	4 MW	\$5.5 million	\$0.9 million	13.4% - Project Go
With Pipeline	4 MW	\$7.1 million	\$0.65 million	8.6% - Project No-Go

Project 5

- College (non-profit)
- 2 miles away from nearest natural gas pipeline
- 4 MW Electrical Capacity, Conventional Natural Gas Boilers
- Annual Energy Cost: \$3.1 million
- Pipeline Cost: \$1 million

	Electrical Capacity	Investment	Annual Savings/Cost Reduction	IRR
Without Pipeline	4 MW	\$8 million	\$0.4 million	8.1 % - Project Go
With Pipeline	4 MW	\$9 million	\$0.3 million	5.4% - Project No-Go

SUMMARY

- Gas commodity is readily available in the northeast
- Many areas in PA suffer from non-existent or insufficient utility infrastructure
- Utility upgrade costs can move a project from a “go” to a “no go” decision