

Team Members:  
Bethany Miller, Aletha Tharp, Max McCubbin

Run of the River

“Saving Money, One Kilowatt at a Time”

## **Business Plan**

### *Executive Summary*

The city of Hodgenville has not taken many steps to become more eco-friendly. This is what prompted us to look for a way to save the city money and also take part in the “green revolution.” By constructing a hydropower project, we will be cutting down on the electricity that is used by the city. With the economy crumbling around us, we must find ways to save money and also protect our resources as they continue to dwindle. We must preserve the Earth that was handed to us for the future generations.

### *Market Analysis*

Right now, hydropower produces 20% of the world’s electricity. However, there are no projects like our own underway in Kentucky. We hope to make hydropower a more popular method to power homes and businesses around the state.

### *Company Description*

In Hodgenville, there is a river behind the recycling center which contains a dam. Our plan is to use the falling water to produce hydroelectric power. The electricity made will be used to power the recycling center and the fire house. Our primary market will be the city of Hodgenville and its citizens. We think that the town is ready to move forward in the “going green” process. By meeting with city officials, we will be able to explain the financial and environmental advantages that our project offers.

### *Organization and Management*

Our role in this project is to develop the design and overall layout of the plan which will be carried out by city officials. The appointed city officials will need to hire electricians, engineers, and any other necessary personnel for the construction of the project.

### *Marketing and Sales Management*

Our customers will be the city of Hodgenville. Our job will be to get our idea out into the public by attending city functions, such as board meeting or presenting to the Chamber of Commerce. Also, we could contact the local newspaper or radio to possibly advertise our idea to gain support of the community.

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### Service or Product Line

Our method of producing energy has many benefits. There is very little pollution due to the absence of fossil fuels. The water that is needed to run the system is provided free by nature in the form of rainfall, which is always renewable. Greenhouse gas emissions are dramatically reduced whereas using the standard method of electricity damages the environment severely. The maintenance and operation costs would be minimal, therefore saving the city valuable dollars.

### Funding Request

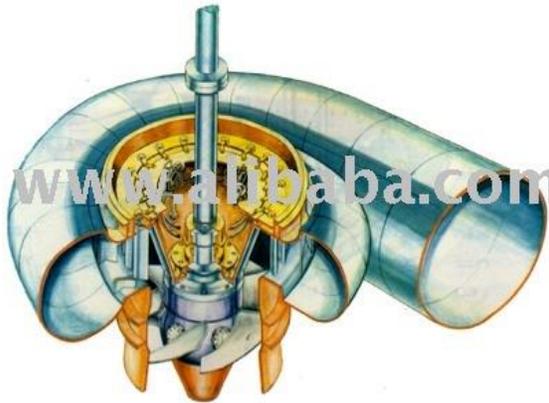
To fund this project, we will first look towards the city to help us. If funds have not been set aside for a community project such as this one, we will look for other resources. These would include private and public donations from within the area. Another method for raising money would be applying for grants from the government. A city official would help write the grant and would handle all aspects of it.

### Financials

We've calculated the start-up expenses to be approximately \$6000. Currently, the recycling center spends about \$720 a year in electrical bills, while the fire house spends around \$540. If our idea was put into effect, the city of Hodgenville will no longer have to pay for electricity for the facilities due to water power being free. After 4.76 years, the cost of the system will be paid off and all money saved thereafter can be considered profit. With the help of outside funding, the payback period will shorten. By reaching our target goal of raising \$3000, the period will decrease to around 2 ½ years.

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Appendix



Type	Radial Flow
Rated Head	3m
Rated Flow	85 m/sec
Power	3 kw
Efficiency	60%
Cost	\$1599.00
Lead Time	2 to 5 months
Manufacturer	Global Import