

# Fuel Cells for Stationary Power Generation

## EXECUTIVE SUMMARY

The University of Oklahoma Fuel Cell Corporation

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## **EXECUTIVE SUMMARY**

The University of Oklahoma Fuel Cell Corporation (The OUFCC) proposes to build a fuel cell manufacturing plant in Wyoming to produce three types of 200-250kW stationary fuel cell units. The three types of fuel cells produced will be solid oxide fuel cells (SOFCs), phosphoric acid fuel cells (PAFCs), and proton exchange membrane fuel cells (PEMFCs). The target market is small commercial and government buildings such as hospitals, banks, police stations, and post offices. The fuel cells will serve as a constant supplementary power system or as an occasional emergency supply of electricity.

For the first year of manufacturing, it is predicted that approximately 74 PEMFCs, 42 SOFCs, and 60 PAFCs will be sold. The increase in fuel cell demand throughout the project lifetime (ten years) will be due to the acceptance of a new technology, an aggressive advertising campaign, and The OUFCC's reputation as established by previous customers.

The net present worth of the project is approximately \$83.2 million and the rate of return is 23%.

In order to reduce incidentals at the on-set of production, only a minimum number of employees will be hired, and The OUFCC will produce fewer fuel cells than predicted by market demand. In subsequent years, The OUFCC will work with a financial planner and/or accountant to adjust the selling price of the product and with various engineers to optimize the number of employees and the manufacturing process so that all operating costs may be kept at a minimum.