

Waterm Ltd.

Business plan

(Draft)

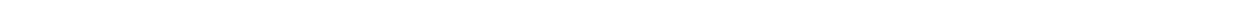
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1. Introduction

1.1. Executive summary

Waterm Technology Ltd (Waterm Ltd) has been established to develop and market commercial applications using wireless temperature sensors. Several market applications have been identified for the existing wireless technology. The chosen launch is wireless temperature sensor for solar water heaters.

Everybody knows how annoying it can be to wait hot water at the bathroom faucet in the morning without any clue if there is hot water in the water heater tank. Usually you temper to switch the heating on and wait 10-15 minutes to make sure that there is enough hot water in the tank. Frequent checking the water not only wastes your time, it pushes up both electric and water bills. Running the water just to see if there is hot water in the tank wastes up to 4,000 liters (4 cubic meters) of water annually for a family of four. What's worse, the water can be only lukewarm when it finally gets to the bathroom faucet. There is also a hidden energy loss when letting the water run while waiting for it to get hot. In the winter, all that room-temperature water wasted down the drain is replaced by cold water from the water main, which must be heated. In the summer, the hot water, making its way slowly to a distant bathroom through long pipes, gives off heat.

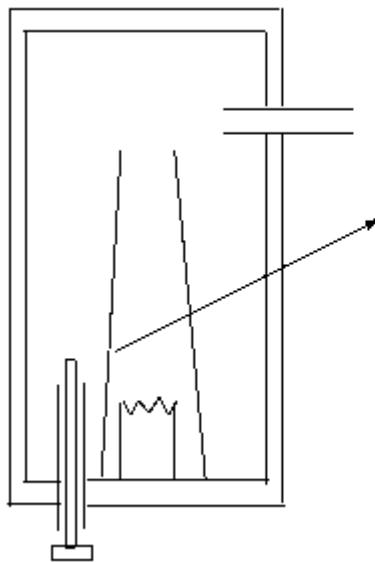
Waterm Ltd. provides a low cost, highly competitive solution – a wireless thermostat. With bill of materials under \$30 we can target price \$70 for the end customer, which is in the realm of the existing electronic and mechanical timers.

The market currently has an annual production rate of at least 10 thousands water heaters adding to the 500,000 of water heaters already installed. Waterm Ltd expects to acquire 30% market share of timers and temperature controls for the existing and newly installed water heaters during next 5 years.

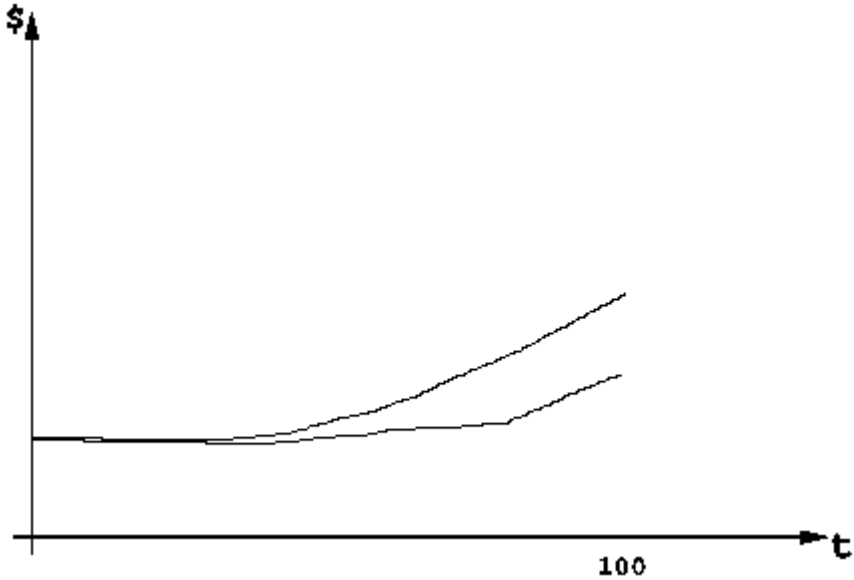
The trend toward higher energy prices creates the demand for more efficient water heating. Lower cost of silicon and computer chips provides meanings to improve significantly performance of the water heaters. Waterm Ltd's management team represent a strong blend of complementary skills and business experience and uniquely positioned to capitalize on this demand.

1.2. The company profile

- The vision – wireless temperature sensor in every household by the year 2010.
- Company objectives. Waterm Ltd's mission is to be leading developer and manufacturer of wireless appliances for the solar water heater initially and ultimately of a wider range of wireless components utilizing unique combination of low cost hardware and small print software.
- The technology and the product. The T-Sense design was developed by the Waterm Ltd's team as a result of a long felt need for more efficient usage of the water and energy. T-Sense is expected to be significantly cheaper than conventional wireless temperature sensors and has been designed to be installed in every water heater providing far greater efficiency for only marginally higher cost. The technology has market applications in the cooling, heating, ventilation. A number of prototypes have been developed by Waterm Ltd's for the following applications:
- Compact thermostat with wireless temperature sensor (Figure 1)



Traditional solutions and their problems. The following diagrams (Figure 2) shows energy and water cost savings for summer and winter seasons in comparison with simple timer. If thermostat is set to 80°C and current temperature in the tank is 60°C timer will let the water to be heated until range 80-90°C is not reached. This is especially true in the summer season when in many cases there is hot water in the tank.



Intellectual property. The technology associated with T-sense has been fully developed by Waterm Ltd and the intellectual property (IP) rights are owned and controlled by the company. The T-sense technology is protected by a web of intellectual property including trade secrets.

2. Market analysis

2.1. Market analysis

There are two key market segments for the T-sense:

- Domestic solar and electrical water heaters.
- Industrial and domestic heating and cooling equipment

The chosen launch market is domestic solar water heaters. This is based on two primary factors:

- T-sense offers especially high benefits when used for the solar water heaters.
- The features and benefits of the T-sense will allow to save energy and water.

2.2. Target market size

It is conservatively estimated that 10 thousands solar water heaters are made and installed every year. It adds to the already installed 500 thousands solar water heaters. Estimated growth rate for this market is 5% per annum.

2.3. Market trends

Two market trends combine to indicate a strong demand for T-sense:

- Higher energy costs and limited water resources
- Demand for hot water from growing population

2.4. Competitors

Name	Price range (USD)	Functionality
Waisbord	20 - 35	Timer with or without 24 hours clock, 3.5KW
Fetaya	25 - 30	Timer 120 minutes, 3.5KW
Ningbo	25 - 30	Timer with or without 24 hours clock, 3.5KW
Unknown producers	10 - 20	Timer, 2.5-3.5KW

3. Production costs and target price

3.1. Bill of materials (BOM)

Assuming one thousand units BOM of the device is expected to be under \$30. It includes two plastic boxes, eight symbols LCD, four AA batteries, two 8051 CPUs with embedded AM receivers and transceivers, all required passive electronic elements.