**Bangor Hydro Kiosk Application**

Presented to

**Bangor Hydro Electric Company**

Proposed by

**ASAP Media Services**

University of Maine

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**Introduction**

**Audience Analysis**

High School Students

High school students today have a desire to live “greener” due to the increasing concern of man-made climate change in their society. Currently, students can decrease their negative effect on the climate in many different ways such as by driving eco-friendly cars, recycling electronics properly, and conserving water. Although students have been told that these activities are beneficial, many of them do not understand why. Having access to an application like the one proposed by Bangor Hydro would allow students to not only be introduced to greener technologies, but also learn how these technologies work. With this high level of understanding, students would be encouraged to spread their knowledge to their friends and relatives.

Homeowners

Homeowners are always on the look out for choices they can make that will improve their quality of life. Many times, these decisions are financially driven and revolve around saving money both in the long and short terms. However, the average homeowner does not have access to information that can help them make these decisions. With the help of the proposed kiosk and website applications, these homeowners would be able to determine the approximate costs associated with installing a heat pump in their home. They could then compare these short and long-term costs with their current method of heating to determine the best course of action. Knowing that Bangor Hydro is providing tools to aid the average homeowner would greatly increase customer loyalty.

Trade Show Attenders

Bangor Hydro has also expressed their desire to put this kiosk application on display at various trade shows they attend. Many people who attend these trade shows are closely connected to the alternative energy and heating markets. Among these are contractors and installers that provide heat pump services who may be unsure of the success of a business venture in Maine. Seeing the strong initiative of Bangor Hydro to promote heat pump technology would encourage more of these businesses to open up branches in Maine and create new partnerships.

**Solution**

ASAP proposes an educational multi-touch kiosk application designed primarily for high school students that will educate users about the science behind, installation, and benefits of heat pump technology. Users will take the role of a heat pump contractor tasked with installing a heat pump system for a residential home. Students will be able to choose the type of heat pump to install (geothermal, air source), predefined house specifications (one story, two story), insulation quality (low, medium, high), among other options. They will then be led step-by–step through the animated installation process they chose, each step accompanied by information describing the purpose of the installed part. Each step will be interactive, requiring the student to “manually” take part in each phase of installation (ex. Students may have to “dig” a hole in the ground for the geothermal pipe). At the end of the installation, the student’s house will be compared to houses heated and cooled by alternative methods such as natural gas in terms of cost, energy efficiency, and carbon output.

A web based application will also be developed that will allow homeowners to determine costs and benefits of installing a heat pump system in their home. Much like the kiosk application, the web app will ask homeowners for physical specifications of their home such as stories and insulation. Additionally, they will also be asked for the method of heating and cooling they currently use as well as how much they pay per month. Using this data, the web application will present a comparison of the two methods of heating using costs, energy efficiency, and carbon output.

The application for the kiosk will be built using HTML5. HTML5 can facilitate the multi-touch functionality necessary for this project. Additionally, building in HTML5 will allow ASAP to develop the web application with little modification. The use of HTML5 also opens doors for future development of mobile applications.

Finally, Bangor Hydro has stressed their desire for this kiosk to be portable in the sense that it can be brought easily and conveniently from venue to venue. To facilitate this need, ASAP proposes a 40-inch multi-touch enabled flat-screen monitor that can be easily transported to various locations. This multi-touch monitor would connect to a computer running the kiosk application as well as a power source, components that are small and portable, allowing for fast setup and breakdown.

Possibly mention us building a base for the kiosk.

The proposed sections of this project (along with individual production times) are:

**Cost Analysis and Development**

**Conclusion**

**Agreement**