**Life of a Meter**

**Presented to**

**Bangor Hydro Electric Company**

Proposed by

**ASAP Media Services**

University of Maine

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**Introduction**

Bangor Hydro has requested development of a model for their employees that presents the connections each department has with each other through the process of designing, installing, and maintaining a Smart Meter. To that end, ASAP has proposed the construction of a web-based, visual-driven system that will depict the “life of a meter”. A graphical overview of the process will be created which highlights the larger phases surrounding purchasing, installing, maintaining, and the retirement of a Smart Meter. Each of these phases can be explored, presenting users with job titles and descriptions and employee names and descriptions. This system will give Bangor Hydro employees the opportunity to see the impact they make on the Smart Meter process as a whole, giving them a better sense of ownership of every Smart Meter and camaraderie among their fellow employees.

**Solution**

The proposed solution will be developed as an HTML5 web app with department and employee-specific information stored in an external database. The system will be developed so as to run in IE8, the dominant web browser in use at Bangor Hydro.

The web app will be a single page, graphical illustration of the various phases of a meter’s lifecycle. Each major phase will be represented by a graphic and, together, these graphics will outline the process of designing, purchasing, installing, maintaining, and retiring a Smart Meter. Each phase will be interactive and, when clicked, will expand into nodes that represent the departments associated with each phase. These departments can be clicked again, further expanding into the jobs and employees linked to the department. Upon selection of a phase, department, job, or employee, a relevant description will appear in a designated area on the page. As users dive further into the nodes, they will begin to see how each phase is connected to another and how their role in the life cycle of a Meter impacts the process as a whole.

The database will store all relevant information about the lifecycle of a meter, departments, and employees including department names and descriptions and employee names, titles, and job position descriptions. All of the aforementioned data will be provided by Bangor Hydro and stored as an XML file for simple management by Bangor Hydro post-completion of the project, should any changes to the information be necessary.

TO REMOVE – KEPT FOR REFERENCE

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

**XML Database (5 hours)**

Schema Creation (2.5 hours)

- Testing and Converting Data (2.5 hours)

**Company Overview Map (100 hours)**

Design 25 hours

Interactivity 15 hours

10 graphics representing 10 phases 50 hours

Additional graphical work 10 hours

**Dynamic Node-based Visualization (65 hours)**

Interfacing with Database 5 hours

Development of Visualization 50 hours

Integration with Map 10 hours

**Cost Analysis**

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| --- | --- | --- |
| **Section** | **Hours x Rate** | **Total** |
| XML Database | 5 hours x $35/hour | $70.00 |
| Company Overview Map | 100 hours x $35/hour | $3,500 |
| Dynamic Node-based Visualization | 65 hours x $35/hour | $2,275.00 |
| **Total Cost** | **170 hours x $35/hour** | **$5,950.00** |

In the proposed strategy, ASAP will develop a database to store relevant information about departments and employees at Bangor Hydro. ASAP will then design and develop graphics representing each phase of the “Life of a Meter” to illustrate how each department at Bangor Hydro contributes to the life cycle of a meter. A dynamic visualization tool using a network-based metaphor will also be developed to relate information about specific departments and individuals to the phases of a meter’s lifecycle. During development, bi-weekly meetings will be held with Bangor Hydro to review and discuss progress.

**Agreement**

Original graphical elements created by ASAP specifically for the application becomes property of Bangor Hydro once payment has been delivered. ASAP shall retain ownership rights of interactivity designs and reserves the right to reference and reuse source components (void of Bangor Hydro’s styling, data, or information otherwise) in future projects.

We hereby agree to these terms, conditions and scope of work between ASAP and Bangor Hydro concerning development of the Life a Meter web application.

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Date Mike Scott Date

Bangor Hydro ASAP Media Services