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DISTRICT STEAM HEATING

LARGE SYSTEM MARKETING: EXPANDING YOUR MARKET SHARE

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by

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This presentation is a summary of the marketing and sales plan for Seattle Steam Corporation. The plan development began 18 months ago and it continues to evolve today.

Electric rates are escalating while natural gas and oil prices have stabilized after significant increases in the past few years. New building construction is advancing at over 1 million square feet per year with several large projects planned and a convention center just getting underway. The dynamics of rapid changes in relative energy costs and a vigorous construction schedule provide opportunities to expand the sales of purchased steam. Market segments are defined. Individual sales strategies are described as well as how various selling tools are used for each segment.

Examples demonstrate how district heating was sold in three types of market segments: (1) an existing customer; (2) retrofit of an existing in-house boiler system; and (3) new construction.

Results after 18 months demonstrate some success with more potential on the way. Two potential products include a chilled water system and a cogeneration unit.

INTRODUCTION:

Seattle Steam Corporation serves over 300 customers in the downtown and First Hill areas of Seattle, Washington. The current service territory consists of 8 square miles with 18 miles of service mains. Predecessor companies were started in 1893 and in 1897, producing both electricity and by-product steam for district heating. With the advent of low cost hydro-electric power in the early 1900's, the electrical generation portion of the business faded away, while the district heating business flourished.

Two strategic events in the 1960's provided the base on which the company has the capability to grow today. The first action was the complete overhaul and replacement of the steam generating units. Modern oil and gas fired units replaced inefficient coal burners with their high maintenance and operating labor costs. The second event was the installation of the new high pressure mains to serve the First Hill area above the Interstate 5 freeway. Today that system serves about one-half of our total load and includes some of our largest customers. As a result, Seattle Steam Corporation has the capacity both in the generation and in the distribution systems to serve new loads in the current or expanded service area.

One additional change in the system load profile also affects the way in which we look at our capacity needs. That change is the reduction of the morning peak load profile in the last ten years. As the price of energy increased and as customers became more aware of the need for energy conservation, total steam use per heating degree day was reduced. More significantly, however, was the reduction in the peak morning load by 25% as building operators learned how to control the building warm-up sequence and to avoid "overshooting" the actual demand for heat each day. The benefit to the total system is an added equivalent capacity factor.

This presentation is a summary of the marketing and sales plan for Seattle Steam Corporation. The plan development began 18 months ago and it continues to evolve today. First, we will be discussing the dynamics of the Seattle market, and some definitions of marketing terms. From that base we will review the market segments in Seattle, the competition, and the nature of our business development activity. Finally, we will examine three cases and discuss results over the past 18 months.

THE DYNAMICS OF THE SEATTLE MARKET:

There are three main forms of heating energy supply for buildings in downtown Seattle outside of passive or active solar systems. They are fossil fuel boilers (in-house), electricity, and district steam. From the 1950's through to the early 1970's, purchased steam was a preferred source of energy. Rates were relatively low (low fuel costs) and total utility costs in a new building were not as significant as they are today.

With the advent of the heat pump, heat recovery systems, and rapidly rising fossil fuel costs in the 1970's, building designs favored lower cost electrical energy as the outside energy supply. Building HVAC systems became more efficient in the wake of the oil price shocks in 1974 and 1979. The "all electric" office building, complete with electric boilers, was the norm in Seattle during the 1970's.

In the late 1970's electric rates started to climb. The days of low cost hydro power were numbered as loads increased and new electrical generation resources were thermal based. Since 1976, average electric rates have increased 14% annually to a level where winter electric energy costs

are higher than purchased steam today. The stage was now being set for a renewed marketing and sales effort for district steam in Seattle.

Today, new building planning and construction is booming in Seattle. New space is opening up at the rate of one million square feet each year. The new convention center will trigger a new round of hotels and related retail and office buildings.

DEFINITION OF MARKETING AND BUSINESS DEVELOPMENT

The objective of the marketing and business development effort is to identify and sell the idea of district steam to people who are more familiar with recent designs of the "all electric building". Most developers, building owners, architects and engineers have only a vague understanding about the advantages of hooking up to the central system, and are uncertain how to evaluate the alternatives.

Marketing refers to the staff functions of planning, market assessment, analysis of opportunities, strategy development, market information, and providing direction for the business development activities.

Business Development is the line function of direct customer contact for the purpose of acquiring new customers and maintaining relationships with existing customers.

A third function is also important: Customer Service, where the contact with the customer involves some troubleshooting on HVAC systems, resolving metering and billing records, and coordinating new hook-up installations.

All three functions relate to the customer and, therefore, to the sales success of the company.

MARKET SEGMENTS:

District steam customers and prospects can be divided into several groups or segments depending on the nature of the building or project and who makes the decision on HVAC specifications. The major objectives of the marketing function are to (1) determine the needs for specific types of customers (i.e. hotel, office building, retail, existing or new, ownership status, etc.); (2) determine the needs of those who analyze and specify HVAC systems (i.e. mechanical design engineers); (3) develop information which will be used to differentiate our product from the competition and to demonstrate its advantages.

A local owner and a local engineering firm with a simple office building project have a much different set of needs than a new hotel project being financed out of California with an architect from Beverly Hills and a local engineering firm whose project leader is new to our area, having recently moved from Los Angeles.

The former needs to know (1) what the price of steam is and will be, (2) will there be a connect charge?, (3) the latest information on hydronic heat pump systems, and (4) the latest building energy code changes.

The latter needs to know a lot more! First of all, the individuals do not know or understand about district heating systems. Second, they don't know about Seattle Steam Corporation. Third, they have a lot of experience with gas boilers and heat pump systems.

While the former knows how to evaluate and design for district heating, the latter does not even know about the company, the product or how to use it. The marketing strategy is different for one than the other.

A marketing strategy, then, is not a generalized statement of hopes and aspirations. A marketing strategy incorporates

- . What a customer's information needs are.
- . What advantages the company will use to distinguish itself from the competitors.
- . What moves (business development activity) will be made to secure a steam contract.
- . The tracking of results.

COMPETITION:

Understanding your competitors and building that knowledge into the marketing strategy will improve the success rate in business development. Seattle may be a somewhat unique market since we have two major competitors: the gas company and the electric utility. A brief description of each will help set the stage before we discuss the business development activity.

The gas company is an aggressive competitor with a large staff of sales engineers and product salesmen (gas burners, energy efficient windows, etc.). Advertising dollars are spent on the design trade, including the annual ASHRAE chapter scholarship dinner. They have a quarterly newsletter featuring the latest and best in local gas system projects. They are active in building code development, both at the local and State level.

The electric utility no longer promotes the sale of electricity, as it did until the low cost hydro supply ran out. Much of their publicity and activity today deals with conservation. Some of it is driven by requirements from the Northwest Power Planning Council (NPPC). The NPPC was formed by Congress to deal with the chaos of the WPPSS nuclear program in Washington State.

The major advantages we see over our competition are:

Over Electricity

Cost of energy today

Future cost trends

Building energy codes

Capacity of building heating systems

Fuel switching

Over In-House Boilers

More rental space

Lower first costs

Lower operating and maintenance cost

Higher reliability

Fuel Switching

BUSINESS DEVELOPMENT:

Nothing happens until someone makes a call. The best laid marketing plans and strategies go for naught if someone doesn't make a call. Not only does the call have to be made, but it has to be a good call; one that begins to build rapport with the customer and starts the process of

working with and entering into the decision making process of the customer or his representative. In fact, several calls will be made over a period of time, each one with a specific purpose, and each based on a specific follow-up from the previous call. If there is one single most important activity in the spectrum of marketing and business development, it is making calls which make use of the information and plans developed in the marketing activities.

There are several tools we use in the business development activity. Some may seem trivial, but when taken as a whole, they all support the objective of raising our profile among building owners, mechanical design/build contractors, architects, design engineers, project developers and consultants who have, or might have, activity in downtown Seattle.

These tools include a new logo, complete with new coordinated stationery and presentation folder. A new brochure was created to tell our story, highlighting the advantages of district heating and showing our service territory. Advertising copy was developed for selected local trade directories. The presentation folder makes a nice package for presentations to customers and prospects.

Another tool is the electronic spreadsheet. This is extremely valuable in developing several "what if" analyses for different rate comparisons for a prospect.

Don't forget your plumbing and mechanical contractor friends. They represent a large set of eyes and ears on what is happening and can provide valuable leads.

An application manual for typical steam hook-ups is useful. We are considering one based on the success of Central Heat, Ltd. in Vancouver, B.C.

One other area of activity to help both marketing and business development is to serve in selected organizations. Some of the ones in our area include the local chapter of ASHRAE, The Downtown Seattle Association, American Society of Hospital Engineers, and the Building Owners and Managers Association (BOMA). Selected committee work in the Chamber of Commerce proves useful in developing contacts and understanding what is happening in the city. Presence in these organizations demonstrates a commitment to the community and to your customers.

With an understanding of the market dynamics, let us now examine three case examples of how we spend our time and efforts to maintain and expand our market share.

CASE EXAMPLES IN MAINTAINING AND EXPANDING MARKET SHARE:

I. Keeping an existing customer is worth a lot of business development time and effort. In our service area, there are several older buildings which were converted from in-house boilers to district steam in the 1960's. The old boilers sat idle. Some were originally coal fired units which had been retrofitted with oil burners prior to shut down. In this particular case, the building ownership remained the same, but the management personnel had changed. There was little or no understanding by the manager about the space and water heating system in the building, or why it had been converted to district steam in the first place.

Along comes an aggressive gas burner salesman. We hear about his proposal from one of our plumbing and mechanical contractor friends who had been called in to look at a problem with cold radiators. The customer

service manager and I arranged a meeting with the building manager and we began the process of understanding what her needs and concerns were. After a thorough survey of the heating system and controls, we were curious how a gas burner in the old boiler was going to save dollars.

When more appropriate estimates on the overall boiler system efficiency were incorporated, and revised estimates of maintenance and boiler inspection costs were included, the projected payback disappeared. When we discussed the difference in reliability, between the old boiler system and district steam, there was no need for further selling effort. The needs of the manager had been met. She realized that she already had the best energy supply system and could now concentrate on improving the internal radiator system.

II. Replacing an in-house boiler with district steam requires a different sequence of calls. There are several buildings in our service area with their own boiler systems. They range in size and state of repair. We have realized that there is not much benefit for an owner to switch to district steam on a straight fuel-for-steam trade. However, when the owner is faced with major repair costs to retube, or the insurance company has placed a red tag (do not operate) on the system, district steam is his best alternative.

In this case, I had been calling on the owner for about a year. I had done all the usual cost analysis showing how steam was the least cost alternative vs PS 300 oil when all costs are included. The owner kept delaying any decision until a Friday night in November at 11:30 PM. The boiler was out of service and he was going to have several unhappy tenants on Monday morning, including a hair styling salon with its hot water needs. We had him on line by Tuesday afternoon. The sale was made because of the contacts and information which had been developed months ago.

III. The marketing and business development strategy for new construction is different from the previous two cases where we were dealing directly with the individual building owner and/or manager.

For new construction, there are several levels and types of professions involved in deciding on the HVAC system for a new project. At the top we have the owner or the developer. He retains an architect who, in turn, may choose the mechanical design firm. Sometimes the owner decides on the mechanical design team. Other times an owner will deal directly with a design/build firm and bypass the more traditional architect, mechanical design, contractor relationship.

In any case, we do not depend on the daily list of building permits for our marketing information. By that time, it is too late to influence the design or even to be considered as an energy supplier. Design decisions are made as many as two to four years before a permit is issued.

In this example, a biological engineering firm was expanding and needed heating energy for ventilation air, domestic hot water, and equipment sterilizers. From the marketing strategy we knew we had to identify and call on local engineering firms. The business development action was to make the calls using brochures and information about the advantages of district steam and to listen to the engineers' questions, and to discuss the status of their projects. The main effort here was education about our system. Younger engineers in the U.S. generally do not study district heating/cooling systems, and we had to start with the basics of what district heating can do. By providing some information on relative owning and operating costs between a gas boiler on the roof and district steam, the decision was made at the engineering level to go with Seattle Steam. There

were seven calls made, including a tour of our plant for the design teams. I made one call on the president of the customer firm to sign the steam service contract.

These case examples point out that marketing is not a singular path for all cases, but a multiplicity of events and information exchange with the common strategy of gaining information about the customer's needs and making useful and informed calls.

RESULTS:

The time between the first call and the first reading on a new customer's meter can be several months or years. It is too early to track the total effect of the efforts over the last eighteen months, however, there are some beginning tangible results.

We have added 8000 Mlbs/yr load where contracts have been signed. We have strong commitments (but no contracts, yet) for another 10,000 Mlbs/yr, and have proposals outstanding for 20,000 Mlbs/yr. Several projects with a 5,000 to 15,000 Mlbs/yr total load are under evaluation. If all of the prospective loads just identified were to connect up, we would have added about 5% to our annual demand and would have captured most of the new heating market we can identify today.

The future has the potential for more load growth as we pursue the boiler retrofit market segment and continue to work with new projects.

NEW PRODUCTS:

The existing base of business provides the opportunity to explore some new areas, namely a district chilled water system and the possibility of a cogeneration unit producing electricity and steam.

The chilled water opportunity is for a small area near the plant where several large projects will be built. We are in the economic feasibility stage right now.

The cogeneration opportunity would be matched to the base load of our system and utilize a gas fired turbine with a waste heat boiler.

SUMMARY:

Marketing and Business Development functions are both needed to increase your market share. Changes in the relative costs of energy and a vigorous property development activity in downtown Seattle provide the opportunity to expand sales. With the right tools, a disciplined sales call effort, and understanding the information needs for different types of customers, it is possible to increase your market share.