

EMGT 835 FIELD PROJECT

**SUCCESSFUL PURSUIT OF SMALL ELECTRICAL AND CONTROLS
PROJECTS BY A SMALL CIVIL ENGINEERING FIRM**

By: Craig Gates
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An EMGT Field Project report submitted to the Engineering Management Program and the Faculty of the Graduate School of the University of Kansas in partial fulfillment of the requirements for the degree of Master of Science.

Dr. Herb Tuttle
Date
Committee Chair

Chick Keller
Date
Committee Member

Dr. Bob Zerwekh
Date
Committee Member

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Abstract

This paper determines how a small, primarily civil engineering firm possessing an electrical and controls group can successfully pursue small electrical and controls projects issued by local electrical generation utilities. Not only is it determined that these projects can be successfully pursued but other benefits will be seen.

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INTRODUCTION

Can a small civil engineering firm successfully pursue small electrical and controls projects? This paper determines how a small civil engineering firm with an experienced electrical and controls staff can profitably pursue and complete electrical and controls projects as a secondary market. Discussed is the identification of the secondary market to be pursued, the benefits of branching out, and how to implement the business plan. The business plan is attached in the appendix.

Most engineering firms' goals include steady growth; a positive sign of a firm's sound standing (1). Growth can become difficult to obtain for small engineering firms that have maximized success in the market or markets they support (2). A secondary market can be an ideal way to become a multi-discipline firm creating new opportunities not only in the secondary market but also in its primary market through the development of the new relationship.

Once a demand has been identified, it can be pursued by a firm containing the capability to provide the services required. The adventure can be a profitable one bringing other benefits as well. One of the benefits is that the firm's client base will be increased. A second benefit is the possibility of non-compete project opportunities. Lastly, it may benefit the firm by changing its attitude, becoming broader in the management of

projects to accept work in other markets creating a better working environment for the employees.

For this analysis, the electrical and controls projects targeted are small requiring less than one hundred labor hours to complete; technically challenging projects are not included. Also, the only clients targeted are four local electric generating Utilities in a large Mid US city.

SUCCESSFUL PURSUIT OF SMALL ELECTRICAL AND CONTROLS PROJECTS BY A SMALL CIVIL ENGINEERING FIRM

For many small, single discipline engineering firms it is difficult to continue steady growth in a particular market (3). Most small engineering firms are geography restricted to their local area market. This is due to the added cost of travel expense to a project bid for projects located in other locales. This additional cost typically causes the firm's bid to be higher and not competitive with local firms of the area. Therefore, attempting to branch out to other locales is not usually successful. Another possibility for steady growth is to branch out to other local markets. Not only does this bring in other discipline work but typically new clients creating a larger client base (4).

A market must be identified and evaluated to determine if it is profitable for the firm to pursue (5). For a civil engineering firm, the local electrical and controls market was evaluated specifically with Utility companies. It was determined through investigations that this market can be profitable and contains a high demand for adequate service. The

local Utilities have indicated that large engineering firms do not specifically pursue small electrical and controls projects. Large engineering firms will bid these projects only to support their relationship with the Utility but do not typically commit the same level of quality they do large projects. Also, Utility companies have expressed there is a lack of small engineering firms containing the experience and knowledge to complete the design in a manner they are accustomed. Therefore, for a smaller firm containing the staff capable of completing the design of industrial electrical and controls projects these small projects can be obtained with little cost and risk.

To market the small electrical and controls projects existing brochures generated by the firm can be used to keep cost at a minimum (6). As indicated in the attached business plan, the yearly cost to market this work is \$1500. Also as indicated in the business plan, the first year revenue is estimated to be a median of \$37,500 which means the cost to market would be 4%. Once the relationships are formed, this cost can decrease to approximately 0.2% when yearly revenue is estimated to increase to approximately \$750,000. The only cost is labor to periodically meet with the Client regarding new work and to respond to request to submit a proposal.

The risk associated is low since the revenue earned is only going to be approximately 10 to 20% of the total firm's revenue, once the yearly revenue has increased to the estimated \$750,000. This is assuming that most small engineering firm's yearly revenue is \$10 to \$20 million. Therefore, if this work suddenly is not available it will not largely impact the firm's yearly revenue. The work sought is labor intensive, not technically

challenging work which typically exhibits a higher risk of possible errors. Also, pursuing this work will not require a large investment by the firm since the firm already possesses the software tools required.

Since the experience and capability to provide the services requested are already in-house, the need to recruit and hire additional staff is not necessary. Training cost is not required for engineers or for drafting software if the engineering firm already utilizes standard drafting software like AutoCad or Microstation. Most Utility companies will except either drafting file format.

THE BENEFITS

As indicated, branching out to other markets will typically increase a firm's client base. With new clients, other benefits such as non-compete project opportunities and possibly a better company working environment can be seen.

For example, a civil engineering firm containing a client base of municipalities can add to their existing client base the Utilities as new clients. The local Utilities may not typically have projects of interest for a civil engineering firm but will occasionally have related projects published for bid. Coal fired power plants require a large amount of water supply for cooling and creating steam to power electrical generating turbines (7). A higher degree of water quality is continually sought to increase generation efficiency and to prolong equipment operating life. Also, the used water needs to be treated before

putting back into the natural environment and with EPA's continually higher standards this creates an effort of continual effort to increase treatment requirements.

Another benefit included is that municipalities are forced to competitively bid all projects published but since Utilities are in the private sector they are not required to competitively bid published projects. This means that Utilities can award the project to a preferred engineering firm without the firm incurring additional marketing cost. Many Utilities have a policy that projects under a certain amount do not have to be bid at all. These projects can be directly awarded to a firm of the Utilities' choice and are the projects that are sought to initially build the relationship therefore with little or no marketing cost.

Branching into other markets forces single minded discipline engineering firms to become more multi-discipline oriented. This forces a firm to think in a wider realm, opening up other new avenues that were not considered before. This may be new markets or offshoots of the existing market(s) supported. This will also foster the concept that all disciplines on staff are important creating a better working culture for the firm as a whole.

IMPLEMENTING THE BUSINESS PLAN

Successfully implementing a business plan requires upfront planning and organization. An adequate monitoring and control system must be a part of the business plan to

determine if the results meet the expectations and if not, to identify what corrections must be made.

As indicated in the attached business plan contained in the appendix, the marketing effort for small electrical and controls projects can be performed through the distribution of existing company brochures and monthly lunch meetings (8). The brochures will describe the services provided and the monthly lunch meetings will be scheduled one per month and rotated between the Utilities as desired. The lunch meetings should be used to question the client about upcoming projects and to obtain the likelihood that the firm would be successful pursuing the project.

Proposals should be submitted for projects when requested by the Utility. Unsuccessful proposals should require a follow-up call by the firm's representative to determine the reason for not accepting the proposal (9).

A six month evaluation of successful proposal, current projects, and project completion status should be held with top management. The evaluation will consist of a meeting to evaluate client satisfaction and any business plan corrections if necessary.

Since the projects are small the durations will be at most a few months therefore a project status meeting should be held each month. The meeting should cover each project schedule and budget status. If project corrections are necessary actions will be determined at that time.

SUMMARY

The demand for engineering services for small electrical and controls projects provided by small, local firms is high. Local Utilities have expressed a desire to seek out small firms that are capable of providing the services required. The cost and risk to pursue this work is low since only labor is required and no large amount of cost required to train and obtain in-house tools. As indicated previously, the cost to market this work initially is 4% but will decrease eventually to around 0.2% of the yearly revenue after the relationship is developed. If the existing electrical and controls staff are experienced and capable of providing industrial design systems, new hiring is not required except to assist the present staff. The benefits include the possibility that other opportunities in the firm's priority market may arise and the firm's quality of working environment may increase due to the impact on the firm's culture.

CONCLUSION

This void in the services provided can easily be filled, with low cost to the firm and at low risk. As indicated, this work is estimated to eventually increase the firm's yearly revenue by approximately 10% to 20%; an amount that will not drastically change the yearly revenue but will also not impact it if this work in a particular year is slow. The relationship created will increase the firm's client base and may bring other opportunities in the firm's core market(s). This also means that the work will not change the firm's

core market(s) vision by removing staff from priority market projects to support other market project work. The benefits indicated drastically outweigh the cost and risk required to pursue this work. Therefore, this work should be actively pursued with top management's approval and support.

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APPENDIX A

BUSINESS PLAN FOR ABC ENGINEERS
Pursuit of Electrical and Controls Work
With Local Electric Utilities

By: Craig Gates
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INTRODUCTION

This report is a business plan for ABC Engineers targeting the procurement of small electrical and controls design projects with electric utilities located in a central US city. This business plan discusses in detail the market segment, customer information, value obtained by ABC Engineers, and the marketing budget to pursue projects in this market. The intent of this plan is to convince the Officers of ABC Engineers to allow the Electrical and Controls Department Staff to actively pursue this work under the guidelines indicated herein.

STRATEGIC COMPANY REVIEW

1. Company Statement of General Business Purpose –

- A. ABC Engineers is a multidiscipline engineering company providing consulting services mainly to the municipal water and wastewater industries. The Electrical/Controls Department is looking to quantify the amount of opportunity of electrical and controls design projects existing in the local city electrical utility provider market. The providers have many small electrical and controls projects that are best suited for small engineering companies (due to the Utilities limited in-house staff to support the projects or the lack of project profit available required by large engineering companies).

- B. ABC's mission is to provide the best solutions to client's infrastructure needs from concept to completion, focusing on total client satisfaction while providing security and growth opportunities to the firm's valued employees. Its vision is to consist of continual steady growth.
- C. The majority of ABC's work, or business, is in the municipal water and wastewater areas but ABC has successfully completed a few electrical projects for municipal electric providers. Approximately 50% of projects are in the water market while the remaining approximately 50% are in the wastewater market.
- D. The company employs 130 professionals allowing it to complete major design projects valued at \$30 to \$40 million but small enough to adapt quickly to market changes. Its greatest threat is the possibility to be purchased and absorbed by a larger company.
- E. Overhead cost can be minimized while continually obtaining a consistent profit margin if enough returning clients are retained. This will only be obtained by insuring an amount of quality and customer satisfaction at a value acceptable by its customers.
- F. ABC's goal is to continually grow at a steady rate obtaining a steady growth of its client base.

2. Company Brand Equity Review –

- A. ABC's brand personality is a professional environment but also relaxed enough to communicate to large and small community business leaders. Its brand statement

- is to provide quality and professionally prepared documentation to fit the needs of all its clients, both large and small.
- B. The company's brand statement is appropriate for the client base they have selected to serve. Its operation process is tailored toward the client they serve for each project. For larger companies its process can be more stringent and time consuming but, for its smaller clients it becomes more relaxed and less rigid.
 - C. The brand statement is conveyed using a couple of different communication activities. Value of quality is transported in the documents they produce for clients as deliverables. The company philosophy and personality is conveyed verbally through meetings or interviews held with the client.
 - D. The mix of professional services with a relaxed atmosphere gives an advantage over other engineering firms that consist of only one personality but, there are other firms that have the same belief. Of these firms, ABC believes they will be separated by the quality contained in its deliverables.

MARKET REVIEW

1. Mid US City Area Utility Electrical/Controls Market Analysis –
 - A. See Figure 1 for market hierarchy in Appendix A.
 - B. In ABC's discussions with the local Utilities it was stated by the Utility that \$0.52 per kilowatt is spent yearly for engineering services for small electrical and

- controls projects. 4,327MW of electrical energy is generated in the Kansas City area. This equates to a total market value of \$2,250,000 for small electrical and controls projects.
- C. Since local Utilities were established, many years ago, the small electrical and controls projects market segment has been well established and is in its mature stage. The growth of this market has only increased in the years that additional generating facilities have been constructed.
 - D. The Utilities small electrical and controls project market, which was targeted, sees very little fluctuation from year to year. The consistency is due to yearly plant maintenance determined by the volume above the existing Utility engineering staff's capability to manage. Changes in government regulation and technology only impacts or generates larger projects that ABC is not staffed to support.
 - E. This market segment is a good prospect for ABC company to obtain steady revenue due to the limited number of local engineering firms capable or desiring to provide the services required. Since these projects are small, large local engineering firms do not actively pursue but, will take on only to keep the client relationship. There are only two small engineering firms in this area currently providing the services required to the Utilities. If an obtained market share of 33% is assumed, an even market split for the three competing firms, the yearly revenue for ABC would be approximately \$750,000.
 - F. As indicated above, this market segment will not fluctuate. The project quantity will remain consistent until additional plant facilities are constructed. But, most Utilities typically want approximately three sources they have experience with

providing services. Unless, the project is estimated at less than \$25,000. If so, it can be awarded without competitively bidding the project to different firms.

2. ABC's Relevant Experience Analysis –

A. ABC has not provided much electrical and controls design services to any of the local Utilities in the past. Though they have not, they do retain a highly experienced electrical and controls department staff that will provide the services required. ABC's capability will be realized during the first project they receive, after which the projects will be received with less selling time required. After a few projects their relationship will begin to be formed.

B. UVW and XYZ are local Utilities owned by municipalities that contain both water and electric departments. UVW is owned by a city which ABC has completed work for in the past and has a strong relationship. Opportunity with the electric department may be likely due to their existing relationship. XYZ is owned by another community which ABC has not performed work for. If they can penetrate the small electrical and controls work with XYZ it may lead to more work on the water side.

3. Market Segment Choice-

A. Though ABC does not have experience working for local Utilities, in the electrical and controls market segment, there are only two local firms providing

services. If it is assumed the work will be distributed evenly amongst the three capable firms it would obtain a market share of 33% or a revenue base of \$750,000 yearly. If the company is positioned to be more reliable, easier to work with, and at a higher quality than the other two firms competing, they may be able to obtain a 40% market share with a consistent revenue stream of \$900,000 per year.

- B. One of ABC's company strategic goals is to obtain steady growth through a steady growth of its client base. The possibility of adding local Utilities to its list of returning clients is very high. At the same time it will be obtaining a steady revenue cash flow allowing the growth of its electrical and controls department. The electrical and controls staff could be kept at a constant quantity of personnel by using the time when wastewater and water project work is slow to be filled with the steady work from the local Utilities. This created relationship may bring other discipline work as well which will spread more work throughout the company.
- C. In their discussions with the Utilities the Utilities expressed their company mindset is to procure engineering services with small firms for small projects. The Utility indicated the level of priority received and the level of quality is higher than when hiring large firms.

CUSTOMER REVIEW

1. Potential Customer Characteristics –

- A. As indicated previously its targeted client list consists of local city electrical generation utilities. Four local utilities have been targeted.
- B. In its discussions, the Utilities had indicated a movement to hire small engineering firms for small projects. But, they have historically had difficulty finding small engineering firms possessing knowledge and experience working with industrial electrical power and control systems. The problem utilities have with large engineering firms, for small projects, is that they do not commit the same level of quality that is applied to large projects.
- C. RST has the greatest amount of generating capacity in the local city area, therefore the largest amount of small projects of the utilities targeted. OPQ has the second most generated megawatts and will be the priority targeted utility since a beginning relationship with OPQ has been established. XYZ and UVW are the last targeted clients since XYZ historically has not spent as much for out-of-house engineering and UVW is a small market utility with a very low quantity of megawatts generated.

2. Customer Demand and Probability –

- A. All four potential clients indicated above are local utilities with varying demand for engineering services for small projects. As previously indicated, outside engineering services are included in each year's budget for work that can not be

supported by the company's engineering staff. The highest probability to obtain work in this area is with OPQ since a relationship exists with some of the existing staff from the small amount of previous work completed. Obtaining work with RST is the next highest probability because of their quantity of engineering services purchased each year. It is expected that the percentage of work, in this area, received from XYZ and UVW will be very low.

- B. This is a new market for ABC Engineers and essentially all the potential clients will be new clients. The addition of new utility clients will increase the client base, provide a steady work stream, and provide a steady revenue stream.

3. Customer Database -

- A. ABC's past and current customers consist mainly of municipalities or water and wastewater Districts. Their current database information used tracks past projects typically recording client, project type, total contract, and fees earned. For the utility work sought these should continue to be recorded but add total hours spent in order to identify which client's business created the highest profit percentage. This would allow ABC to determine exactly who their best utility client is in order to assure their satisfaction if at some point satisfaction concessions are to be decided between clients.

ASSUMPTIONS/RISKS, COMPETITIVE ADVANTAGE, AND FORECAST –

1. Assumptions and Risk –

- A. The yearly dollars spent for engineering on small projects is approximated, based on data obtained from OPQ. The amount was indicated to be \$.52/KW and assumed to be the same for the other three Utilities. Also assumed is the market share ABC will obtain. The market share was assumed at 33%, an even market split between the three firms competing, and will not be obtained until years four or five.
- B. No additional risks, beyond normal risks occurred for typical engineering projects, will be seen. The amount of risk may even be less than the amount of risk in ABC's typical projects due to the projects obtained here will be largely labor intensive, not technically challenging.

2. Competitive Advantage –

- A. Since ABC has not been previously involved in this market segment they do not currently have a competitive advantage. It will create a competitive advantage after their relationship has been formed.
- B. With the industrial electrical and controls experience and low overhead cost (compared to large engineering firms) they will be strategically positioned to be successful. They must commit the effort for quality to successfully form the

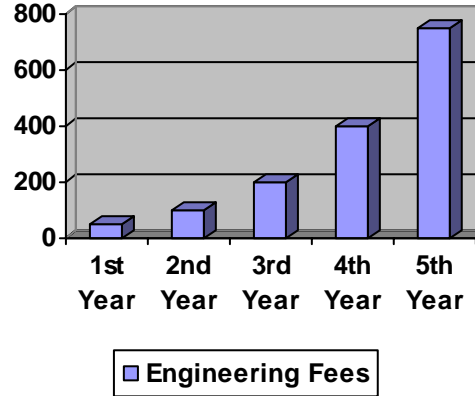
- relationship that will position them to be consistently relied upon to provide the services required. ABC's only limiting factor is the quantity of its qualified staff. The projects will have to be monitored closely to add staff as required to meet deliverable commitments.
- C. The local utility clients targeted are willing to pay for the services required. What they have not received is the amount of quality they have received on large projects. ABC can provide a better product by committing the same effort of quality to these smaller projects that would be committed to large projects.
 - D. It is assumed that eventually a market share of 33% would be obtained. This assumption is based on three service providers in this area (including ABC) with an equal share of the market. Once ABC has delivered the quality desired and form the relationship expected the share of this market could conservatively grow to 40%.
 - E. Currently ABC's competitors have an advantage which is their relationship they have built with the clients targeted. Once ABC has been able to show their better product they will be able to create a closer relationship.

3. Forecast and Objective -

- A. The first year in this market ABC expects to obtain one or two projects. This will generate approximately \$20,000 to \$50,000 in engineering fees. As their ability is proven, the quantity of projects in the following years will increase.

B. Over the next several years the expected increase in project quantity and revenue will consistently grow.

The first year may consist of two projects; the second year is expected to increase to four projects; and the third year the desire is to see six to eight projects obtained



with earned engineering fees of \$120,000 to \$200,000. In year four the goal is to receive projects totaling \$250,000 to \$400,000 and for year five \$500,000 to \$750,000 in earned engineering fees. This is based on an estimate of approximately 25 projects per year that are bid by the local utilities.

C. The revenue from this market segment will not make a major impact on the overall yearly revenue generated by ABC. But, it will allow them to form a relationship with the local utilities that may lead to larger projects and projects in other market segments for other disciplines.

VALUE EQUITY –

1. Portfolio of Services –

- A. The services to be offered, to the four city local Utilities, consist of electrical and controls design work for small projects in power plant facilities. The design services will include drawing and specification generation and construction management. During discussions with the Utilities, they have indicated difficulties hiring large engineering firms for small projects. Problems usually occur because they receive a low priority of commitment, which represents a lower level of enthusiasm as shown on larger projects. Through a commitment to meeting project schedules and budgets ABC can fill that void, increasing its client base and receiving a steady yearly revenue stream.
- B. The deliverables will be produced quicker, cheaper, and with more quality than a large engineering firm can because of ABC's size and lower overhead costs. Its experienced engineering staff gives us them advantage over other small engineering firms that typically do not have industrial or power plant electrical and controls experience. Because of these factors, they can realistically obtain within five years a market share of 33% of the projects in this targeted segment.

2. People –

- A. ABC's electrical and controls staff possesses 80 years of combined professional design experience in the area of industrial electrical and controls projects. Nearly 20 years of that is related to power plant design. Therefore, its staff does have the experience and knowledge to complete the projects sought with very low risk

- factors. The risk factors are low since the work received will typically consist of labor based projects, not technically challenging projects.
- B. The electrical and controls staff recognizes its core market, their largest revenue generator, has and will remain to be wastewater and water projects. The staff will not assign or view the Utility work, even though it is the groups own revenue generator, as a priority over its wastewater and water projects. A determination of priority will be based on overall project fee size if staff is not adequately sized for meeting all schedules.

3. Process and Delivery Variables -

- A. Each Client's document record keeping and filing format will be evaluated in order to match their existing drawing and specification structure. The intent is to provide each Client with drawing and specification records that are easily incorporated into their existing filing system decreasing their time requirements for involvement throughout the project process.
- B. Due to their size ABC is more capable of meeting short project schedules and budgets than larger firms. Their in-house competition with large projects is less and its process for generating project documentation is more streamlined than at larger firms.
- C. The generation capabilities for project documentation are equal to or greater than other engineering firms in the city area. Their technical drafting staff possesses the capability to copy to electronic form existing drawings and revising them

electronically to indicate the modified or project scope. Their reprographics staff can generate the necessary amount of deliverable copies, size of drawings typically used in this market, and standard specifications currently used will apply to this project work for equipment and construction.

- D. The process that will be adopted as a standard to complete these projects will give ABC an advantage over all other firms. The process other firms use, is to request a copy of the drawings and modify back in their office according to what the drawings indicate and the new equipment to be installed. ABC's process will be to modify the drawings in the field. They will verify the drawings for current correctness at the same time causing very little additional time but increasing the quality of the product drastically. As well, this will allow ABC to obtain a complete understanding of the equipment involved before construction begins. Another benefit is that the overall time required completing the project drawings will be less because they will not be spending idle time waiting for information to be received from the client.

4. Pricing –

- A. Its current or standard company pay rates will be used to price the project engineering fees. Standard multiplier rates are lower than large firms and inline with most medium to small size firms with the capabilities possessed. Therefore, the pricing structure will be less than or equal to its competitor's.

B. The price to value relationship with the client will be same for more. For the same amount of cost the client will receive a better product, in a timely manner, and with less change orders thereby receiving greater value from projects involving ABC Engineers.

5. Value Proposition –

A. A small company with small project orientation, but with the experience for success for both companies involved.

RELATIONSHIP EQUITY

1. Current and Future State –

A. Currently, ABC does not have a relationship with the four local city Utilities.

B. During the first year, it is their goal to acquire the services of one of the four Utilities and work toward a relationship built on trust.

C. None of the four Utilities are essentially aware of neither ABC Engineers nor its capabilities. This will have to be overcome through determination and consistent approach to the Utilities until the opportunity is provided.

D. The goal is to create a relationship with each of the four Utilities that will bring work as a new repeat purchasing Client

2. Relationship Sales Model –

- A. Currently, the sales relationships are non-existent with the Utilities but, the goal is to form a relational selling relationship looking to create long term, repeat Clients.
- B. Once the relationship has been formed and work is being received, a large effort will be spent to assure the Client's satisfaction.
- C. The utility decision maker to interface with may be the plant manager. Some of the targeted projects are small projects issued and awarded by the plant. These projects can be completed under the radar screen of headquarters.
- D. A contact and sales representative will be assigned to work with the four Utilities. The representative will represent ABC and its engineering staff for the immediate electrical and controls work and later other discipline work.

3. Marketing Proposals -

- A. Eventually, a relationship will be built that fosters noncompetitive projects that are awarded as long as the price does not seem out of norm with the rest of the market.
- B. Initially, a response will be submitted to all RFP's issued by the four Utilities regarding small projects where experience exists.
- C. For RFP's that are not awarded, a follow-up call will be made to determine what improvements could have been performed.

4. Marketing Communications –

- A. The current marketing communications consist of the publication of brochures, responding to RFP's or RFQ's, contacting and approaching Clients prior to RFP or RFQ submittals, and attending group or association conferences.
- B. The expected marketing budget for this market segment will be kept low. Existing company brochures will be used in the marketing effort. Only expenses to be occurred for marketing communication activities will be a lunch time meeting with each of the four Utilities, once each month. Only the decision maker will be invited and ABC will pay for the meal.
- C. During these marketing meetings the company's stance should be verbally reinforced "ABC is a small company, small project oriented but experienced for success".

5. Relationship Budget –

- A. The group's yearly marketing budget will be \$1500. This will cover the cost of the meals to be expensed for meetings with the four Utilities. Employee marketing time will be outside the 40 hour weekly schedule therefore, overhead personnel time will not be charged to this activity.

- B. Time accrued for response to RFP's will also be outside the 40 hour weekly schedule. All other time spent will be directly related to and charged to each project.
- C. The percentage of budget to forecasted sales will be initially 4%, but will eventually diminish to 0.2% as yearly revenue increases.

MONITORING AND CONTROLS

1. Sales Planning Chart –

- A. See Figure 2 for sales chart in Appendix A.

2. Monitoring –

- A. The company CEO has agreed to monitor the marketing plan. A meeting will be held every six months to evaluate and discuss status and progress variances from current objectives and forecasts in the marketing plan.
- B. For the six month meeting the Client database shall be reviewed and the project status discussed including number of projects awarded, success with what Clients, fees earned, and expenses.

3. Control (Alternative Strategies) -

- A. If earned fees are lower than forecasted, the quantity of projects awarded, project quantity goals, evaluation of market size, evaluation of number of firms in market, or material contained in response to RFP's will be reviewed. Forecasted values and assumed market share in marketing plan may need to be revised.
- B. If earned fees are higher than forecasted the number of firms in the market will be reviewed; sales budget and staff size will be re-evaluated to determine if there is a need to increase in order to capitalize full market potential; and the market size reevaluated. This may require revising the quantity of firms in the market, sales budget, and assumed market size indicated in the marketing plan.

SUMMARY

The work outlined in the plan above increases ABC's existing Client base, contributes to company steady growth, and generates a steady revenue stream at very little risk and expense to ABC Engineers. A potential market share of \$750,000 is available in a market that currently possesses a limited amount of competition at an expense of only \$1500 for marketing activities. The Utilities have stated a difficulty finding small firms possessing the experience and capability to provide services for small projects that are low risk because they are not technically challenging. The firm has the industrial experience and the capability to meet the project requirements with no additional company equipment or tools beyond what it currently possesses.

Current company standard drawing software, drawing formats, and standard specifications will be used. Project deliverables will be generated using the same process as used in all other project work the firm completes. The deliverables will be provided to the Clients quicker, cheaper, and with better quality than they are accustomed by completing the design effort onsite. This will allow for a quicker generation of drawings at a cheaper cost (since it is a smaller firm) while verifying the existing equipment detail at the same time.

The total potential market value that ABC will be exposed to extends far beyond this segment. The relationship that will be formed with the Utilities eventually could bring other work in other disciplines that have not been considered in the details of this plan. Your support of this plan, the commitment to the monitoring and control strategies, and the dedication of its staff will make this a successful venture for ABC Engineers.

APPENDIX A

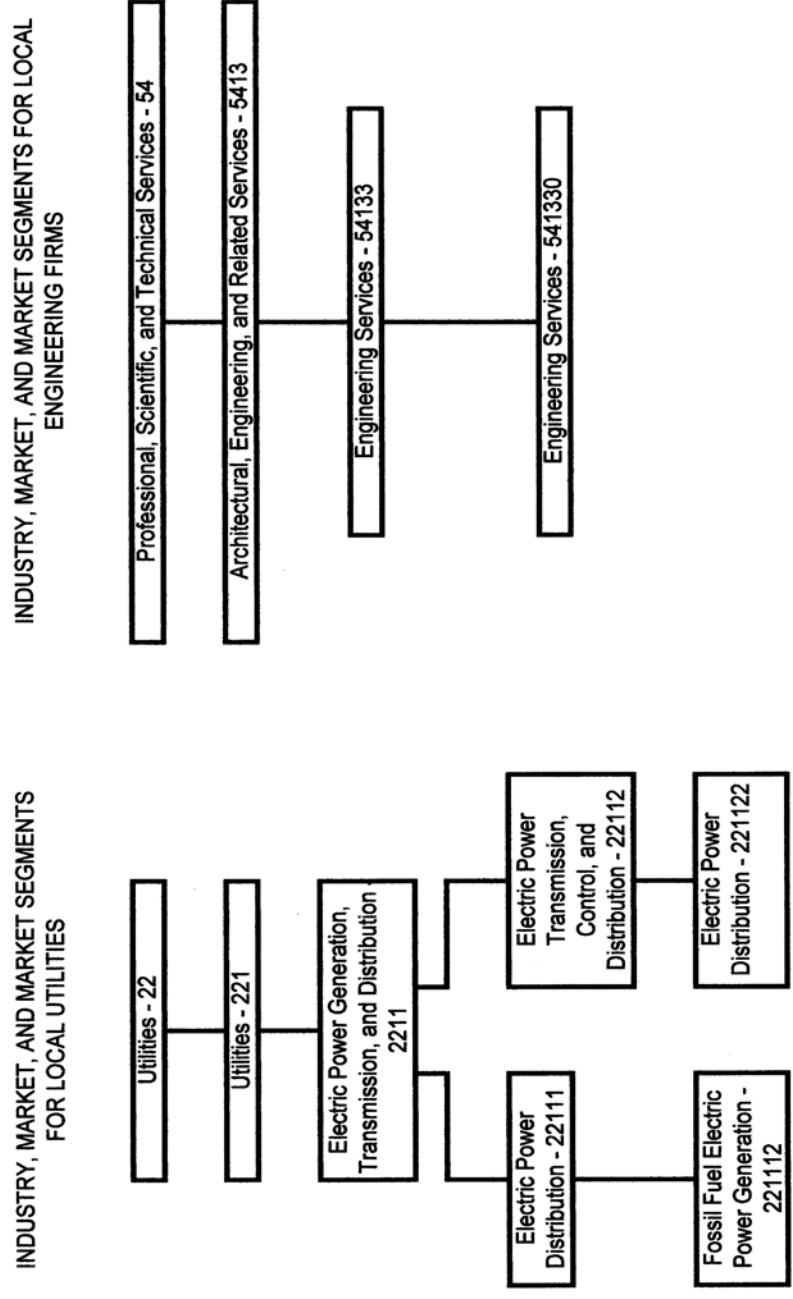


Figure 1 - Market Hierarchy

MARKETS AND CUSTOMERS		COMMUNICATIONS		SALES PLAN		GOAL		LONG RANGE	
	Electric Utilities			Assigned To	CG	Assigned Direct Expense	\$1500/Yr	% of Total Effort	0%
	Local To KC			Assigned Effort (Hours)	0 hrs/wk	% of Total Budget	100	Goal Number of Clients	4
		Message	Small But Experienced	Stage in Buying or Bonding Process	Repeat	Promotional Tools	Direct Marketing	% of Present Workload	60
		No. of Present Clients	0					Priority	2
		No. of Potential Clients	4						

Figure 2 – Sales Chart

INTERVIEW WITH THE PLANT PROJECT'S COORDINATOR WITH A MID US ELECTRIC GENERATION UTILITY

Recorded by: Craig Gates

Recorded: February 15, 2008

1. **Question:** Do you use outside engineering firms? **Answer:** Yes, we use outside engineering firms to supplement our own engineering staff. We use outside engineering for all our large projects.
2. **Question:** Do you have engineering firms that you typically use? **Answer:** Yes, we typically work with the same engineering firms as long as we have been satisfied with their product and services in the past.
3. **Question:** How many engineering firms do you use and are they all local? **Answer:** We typically use three different engineering firms for most of our project design work and those three are local firms. We use one firm that is not local to this area for specific fuels related projects.
4. **Question:** Do you use these same engineering firms for both small and large projects? **Answer:** We have in the past but are trying to separate the small projects from the large projects. We have found that we have better results if we use smaller engineering firms for the small projects and leave the large projects with the large engineering firms.
5. **Question:** Why is that? **Answer:** We have found that we do not receive the same commitment to quality in the deliverables provided for small projects from large engineering firms as with large projects. As a company, we are attempting to identify and use smaller engineering firms for our smaller projects.
6. **Question:** What do we have to do to obtain some of the small electrical and controls projects? **Answer:** You must be approved to do work with us and have a signed master service agreement contract in place. For the approval, all we need to know is what your capabilities are and a project history list for the last five years to show that you can complete the types of projects in question. Also, proof of insurance that you can meet our required insurance amounts.
7. **Question:** Is the master service agreement good for only a certain amount of time? **Answer:** No, once the master service agreement is in place you do not have to reapply as long as we are using your services. If we have not procured your services for approximately a five year span, you will need to have an updated service agreement signed.