

**CITY OF PALMER ACTION MEMORANDUM No. 10-055**

**SUBJECT:** Authorize the City Manager to Negotiate and Enter into a Professional Services Agreement with Mark A. Foster and Associates in the Amount of \$24,960 to Assess the Palmer District Energy System Opportunity

**AGENDA OF: July 27, 2010**

<b>Council action:</b>	<b>Authorized</b>
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**Approved for presentation by B. B. Allen, City Manager** *B. B. Allen*

Route To:	Department/Individual:	Initials/Date:	Remarks:
X	Originator – City Manager	7-9-10 <i>FA</i>	
X	City Clerk	<i>JB</i> 7/21/10	
X	City Attorney	<i>[Signature]</i> 7/21/10	
	Director of Administration		
	Director of Community Development		
	Director of Community Services		
	Director of Public Safety		
	Director of Public Works		

**Attachment(s):** Proposal from Mark A. Foster and Associates

**Certification of Funds:**

	No fiscal impact.	
X	Funds are budgeted from this account number: 01.01.05.6030	\$24,960
	Funds are not budgeted. Budget modification is required. Affected account number:	
	<b>Unrestricted/undesignated fund balance (after budget modification):</b>	

Director of Administration Signature: \_\_\_\_\_

**Summary statement:** The topic of the June 15, 2010, Special City Council was a District Energy System that would be potential benefit from the construction of a power plant on the Alaska State Fairgrounds. The power plan would produce and distribute electricity and have a residual commodity of high grade and low grade water. The city could potentially use the low grade water at the Waste Water Treatment plant to raise the temperature of the lagoons which will increase the City's treatment process and save on electrical costs. The high grade water can be used to heat buildings at a reduced cost to the consumer.

At the meeting the City Council encouraged the City Manager to continue conversations with the project's participants and to undertake an independent review of the project.

A proposal from Mark A. Foster and Associates has been obtained to conduct the independent review. Mr. Foster's consulting practice includes strategic planning, market analysis, regulatory policy and legislative consulting; mergers, acquisitions and divestitures, and expert testimony before the Alaska Public Utilities Commission/Regulatory Commission of Alaska and the Alaska Legislature and Congressional Delegation. At the conclusion of his review, the City will receive an Executive Summary, Report, Economic Analysis Spreadsheets, and PowerPoint "Chart book" with notes. Mr. Foster estimates the work will take three months, and his proposed fee is \$24,960. This amount includes a presentation to the public.

**Administration recommendation:** Approve action memorandum number 10-055.

MARK A. FOSTER & ASSOCIATES

2141 ESQUIRE DRIVE • ANCHORAGE, ALASKA • 99517

June 30, 2010

Bill Allen, City Manager  
City of Palmer  
231 W. Evergreen Avenue  
Palmer, Alaska 99645-6952  
Email: [ballen@palmerak.org](mailto:ballen@palmerak.org)

RE: **Proposal to provide Professional Consulting Services  
City of Palmer - Assessment of Palmer District Energy System Opportunity**

Dear Bill:

Mark A. Foster & Associates (MAFA) is pleased to submit this proposal to provide the City of Palmer with an independent assessment of the Palmer District Energy System opportunity from the perspective of the City of Palmer, its residents and businesses.

Mark A. Foster, principal of Mark A. Foster & Associates (MAFA) has extensive experience involving Alaska energy markets. Mr. Foster served as a Commissioner with the Alaska Public Utilities Commission from 1990 through 1993 overseeing economic regulation of gas and electric utilities in Alaska - subsequently entering into:

- Consulting practice that has included strategic planning, market analysis, regulatory policy and legislative consulting; mergers, acquisitions and divestitures, and expert testimony before the Alaska Public Utilities Commission/Regulatory Commission of Alaska and Alaska Legislature and Congressional Delegation;
- Executive level utility management: President/Chief Operating Officer ATU/ACS Long Distance; VP Product Strategy & Development ACS; Independent Board Director, Alaska Power & Telephone; Board Member and Chair of Board Finance & Audit Committee, Anchorage Municipal Light & Power; and

Recent consulting engagements and reports/presentations have included: Railbelt Energy Overview (IAEE Invited Presentation), Assessment of Railbelt Gas & Electric Utility Financial Capacity (ANGDA), Commercialization Opportunities for the Blue Sky Coal Gasification Project (Agrium 255MW power block for the Railbelt), Utility Rate & Valuation Studies (North Slope Borough), Utility Sustainability (USDA-Rural Development, Denali Commission), Utility Rate Affordability (State of Alaska), Rural Alaska Energy Plan (Alaska Energy Authority).

I welcome the opportunity to work closely with you to develop an independent assessment of the Palmer District Energy System opportunity.

Please give me a call at 907.277.1099 if you have any questions.

Sincerely,

*Mark A Foster*

Mark A. Foster  
Principal

Enclosures

## **Declarations**

### **Alaska Business License**

MAFA is licensed by the State of Alaska, Business License No. 180057.

Mark A. Foster is a registered professional engineer in the State of Alaska, CE 7742.

### **Alaska Bidder Preference**

MAFA meets the requirements to receive the “Alaska” Bidder Preference per 2 AAC 12.260 and AS 36.30.170.

### **Small Business**

MAFA meets the requirements to be declared a small business under state and federal procurement.

### **Conflict of Interest**

MAFA does not currently have any conflicts of interest with respect to providing an independent assessment of the District Energy System opportunity for the City of Palmer.

### **Related Consulting Engagements & Business Interests**

Mr. Foster currently serves on the Board of Directors of Alaska Power & Telephone (AP&T) and provides board level oversight concerning electric and telecommunications utility systems in Alaska, Washington, and Central America. AP&T continues to evaluate business opportunities in renewable energy, including hydroelectric, wind, and alternative fuel resources both within and outside its existing regulated utility service territories. AP&T does not have any plans to provide independent power to the City of Palmer, its residents and businesses.

Mr. Foster recently (2009) served on the Board of Directors of Anchorage Municipal Light & Power.

Mr. Foster has provided consulting services to utilities, independent power producers and industrial customers throughout Alaska. Mr. Foster does not currently have, nor is planning any, consulting engagements with utilities or independent power producers who might develop a power project that would sell power and energy to the City of Palmer, its residents and businesses.

## Understanding of the Assignment

### Introduction

Alpine Energy LLC is a for-profit independent power producer who has proposed to build a Combined Heat & Power (CHP) Plant at the Alaska State Fair and sell electricity to Matanuska Electric Association (MEA) and provide heat to the City of Palmer, dba Palmer District Energy System, which in turn would distribute hot water heat to residents and businesses and the City of Palmer's facilities, including a major proposed expansion of its wastewater treatment system.

The high temperature (205°F) wholesale hot water heat provided to the Palmer District Energy System for resale to residents and businesses would be sold by Alpine to Palmer District Energy at a commercially viable wholesale rate that would enable the Palmer District Energy System to cover its capital and operating costs when retail energy sales are priced at a discount to natural gas retail sales.

The low temperature (105°F) wholesale hot water heat provided to the Palmer District Energy System for use in the City of Palmer wastewater treatment system would be provided by Alpine at a rate that covers the incremental cost of pumping the low temperature hot water through the heating loop.

The City of Palmer, dba Palmer District Energy System, would seek grant and low interest loans to fund the construction of a hot water distribution system. The City of Palmer would retain ownership, management and operating responsibility for the hot water distribution system.

### Objective

The City of Palmer is seeking an independent assessment of the opportunity presented by Alpine LLC's proposed combined heat & power plant from the perspective of the City of Palmer, its residents and businesses. The assessment will describe the opportunity and its risks and provide findings and recommendations that will include risk mitigation strategies.

### Report Outline

The *Assessment of the Palmer District Energy System Opportunity* is expected to contain the following sections & subsections:

1. Executive Summary
  - a. Clear delineation of objective of the opportunity and risk analysis
    - i. Estimate the potential value of the opportunity to the City of Palmer, its residents and businesses
    - ii. Identify key risks and mitigation strategies
  - b. Brief description of the Combined Heat & Power Plant and the Palmer District Energy System
  - c. Overview:
    - i. The Opportunity: What are the benefits (from the point of view of the City of Palmer, its residents and businesses)?
    - ii. The Context: What are the factors that inevitably change but are outside the control of the development/operations team

- iii. The Team: Who are the people slated to develop and operate the new enterprise, including outside parties providing key services
        - iv. Risk & Reward: An assessment of what can go wrong and right; discussion of how risks can be mitigated by the team & how upside can be shared
      - d. Considerations in Structuring the Deal for the City of Palmer
      - e. Findings & Recommendations
2. Description of the Opportunity
  - a. Description of electric and heat markets: what is being sold, who are the buyers, what other options do buyers have, what makes this electric and heating option attractive
  - b. How fast can the power plant & district energy system expand; what are the impediments to growth (physical, regulatory, financial)
  - c. How will electricity and heat be priced
  - d. How much does it cost to sign up and connect customers
  - e. How much does it cost to support/retain a customer
  - f. What are the economics (electric, heat)
    - i. Independent review of revenue, capital cost, operating cost, cash flows, main factors driving creation of value for the combined heat & power and district energy system enterprises
3. Description of the Context
  - a. Demographic trends
  - b. Regulatory Environment
    - i. RCA economic regulation of municipal utilities (AS 42.05)
    - ii. Environmental regulation (EPA/DEC)
      1. Wastewater systems
      2. Electric generation (CO2 emissions cost risk)
      3. Heating systems
  - c. Grant funding potential and value of grant funds to City & Residents
  - d. Federal & State energy related grant potential
  - e. Natural Gas Fuel Supply Considerations
4. Description of the Team
  - a. Who are the key people on the project development & operations teams
    - i. Alpine Energy
    - ii. Matanuska Electric Association
    - iii. Alaska State Fair
    - iv. City of Palmer
  - b. What have the key team members accomplished (highlight resumes)
  - c. What experience do they have that is directly relevant to this opportunity
  - d. Who else needs to be on the team
  - e. How committed are team members to this venture
5. Risk and Reward
  - a. Description of potential downsides

- b. Description of potential upsides
  - c. Discussion of how team can mitigate risk, share upsides
6. Considerations in Structuring the Deal for the City of Palmer
7. Findings & Recommendations

## **Deliverables**

- Internal (City of Palmer) Review Draft – including Executive Summary, Report, Economic Analysis Spreadsheets, and PowerPoint “Chart book” with notes
- Internal Review Draft Package #2 – for internal discussion among the principal parties, including City of Palmer, MEA, Alaska State Fair and Alpine
- Final Report Package – for public disclosure and presentation to the City Council
- Public presentation of final report

MAFA reports will be provided in MS Word with graphics imported from MS Excel and MS Visio. The cash flow cost model and related calculations will be developed and delivered in MS Excel. A Summary of Findings and Recommendations will be delivered in MS PowerPoint as a “chart book” with notes.

## Schedule & Estimated Costs

Task	Description	Begin	Finish	Hours	Billing Rate	Task Cost	Cumulative Cost
1.0	Review reports, data, verify/refine cost estimates, fill in data where needed	July 1, 2010	July 31, 2010	48	\$160	\$7,680	\$7,680
2.0	Develop Opportunity & Risk Analysis	July 12, 2010	August 6, 2010	48	\$160	\$7,680	\$15,360
3.0	<b>Deliverable 1:</b>	August 2, 2010	August 9, 2010	32	\$160	\$5,120	\$20,480
	Internal Review Draft - Executive Summary, Report, Economic Analysis Spreadsheets, Powerpoint "Chartbook" with Notes						
4.0	Internal (City of Palmer) meeting to present overview, solicit review comments	August 11, 2010		2	\$160	\$320	\$20,800
5.0	<b>Deliverable 2:</b>	August 12, 2010	August 16, 2010	8	\$160	\$1,280	\$22,080
	Internal Review Draft #2 Package						
6.0	Meeting with City of Palmer and principals - MEA, Alpine Energy, Alaska State Fair - to present draft findings & solicit comments	August 17-20, 2010		4	\$160	\$640	\$22,720
7.0	<b>Deliverable 3:</b>	August 23, 2010	August 27, 2010	10	\$160	\$1,600	\$24,320
	Final Report Package						
8.0	Public meeting to present findings	September, 2010		4	\$160	\$640	\$24,960
			<b>TOTALS</b>	<b>156</b>	<b>\$160</b>	<b>\$24,960</b>	

### Estimated Cost Summary

Billing rate is \$160 per hour.

The estimated level of effort is 156 hours (\$24,960).

Professional consulting services are billed monthly and due in 30 days.

## Project Team Experience and Qualifications

### Mark A. Foster, Mark A. Foster & Associates (MAFA)

- Selected Consulting Engagements
  - ANGDA – Financial Capacity of Railbelt Gas & Electric Utilities
  - AGRIMUM – Railbelt Energy Market Reconnaissance Study, Blue Sky Commercialization Report, Regulatory and litigation support - Nikiski Cogen Project
  - ASHNHA/ASHPIN – Small Hospital Tele-radiology Business Plan, Electronic Health Record Research
  - UAA ISER – Health Care In Alaska, Tele-health Business Models Scope of Work, City of Seward Energy Supply Reconnaissance Review, Rural Utility Feasibility Studies, Kenai Peninsula Natural Gas Feasibility Study
  - AURORA GAS – Expert testimony before the Regulatory Commission of Alaska regarding natural gas transportation tariff and gas balancing provisions
  - ALASKA ENERGY AUTHORITY – Rural Energy Plan, Rural Alaska Natural Gas and Coalbed Methane Study
  - Mat-Su & Homer Community Groups – Economic Review of Coalbed Methane
  - North Slope Borough – Valuation Studies, Litigation Support, Rate Studies, Service Area Ten Utilities
  - Denali Commission – Rural utility sustainability studies, rate studies, RCA Petition to Adopt Regulations on Rate Recovery for Grant-Funded Plant
  - First Alaskans Institute – Rural community electric and energy cost of service studies
  - Kuukpik Corporation – Nuiqsut Natural Gas and Electric Utility Studies
  - USDA Rural Development – Sustainable Operations, Maintenance & Management of Rural Utilities; Financial Sustainability Studies, Cost of Service Studies
  - Golden Heart Utilities / Fairbanks Sewer and Water – Expert testimony before RCA concerning municipal utility divestiture and benefits arising from combination of municipal and investor owned utility operations
  - State of Alaska, Regulatory Commission of Alaska – Expert testimony concerning Fairbanks Municipal Utility System utility divestiture
  - Alyeska Pipeline Service Company – Telecommunication Vendor Management
  - Matanuska Telephone Association – Strategic Planning involving wireless services, networks, markets, capabilities and technology trends
  - University of Alaska Statewide – Strategic Network Planning
  - Alaska Public Broadcasting – Strategic Network Planning
  - State of Alaska – Review of Public Interest Considerations, State of Alaska Telecommunications Partnering Plan Procurement
  - Alaska Fiber Star – Strategic planning involving Alaskan and lower 48 Internet services, networks, markets, capabilities and technology trends
  - ATU Telecommunications – Survey of local services and profitability, assessment of markets vulnerable to competitive entry, review of fixed wireless technologies
  - Sutton Community Group – Economic Review of Sutton-Glennallen Intertie

- Industry Experience
  - **Board of Directors, Alaska Power & Telephone.** Independent member of board of directors brought on as part of a work out in 2003. Member of Audit Committee.
  - **Board of Directors, Anchorage Municipal Light & Power.** Independent member of board of directors brought on as part of a municipal reorganization to create a more independent enterprise consistent with prudent business practice in 2009. Chair of Finance/Audit Committee.
  - **VP, Product Strategy & Development, Alaska Communications Systems (ACS)** – Supervised development of telecommunications networks and services including DSL, wireless high speed access, long distance, fiber optic facilities, cable TV, wireless, ISP, web design, web hosting, satellite data, voice, and broadcast services, and bundled combinations of services.
  - **President/COO, ACS Long Distance/ATU Long Distance** – Supervised operations and strategic partnerships to enable the company to build Alaska and lower 48 telecommunications networks and services including local, long distance, voice over packet (frame, IP) equipment, vendors, and networks, frame relay, private line, wireless bypass technologies and services, ATM, and fiber optic facilities.
  - **Commissioner, Alaska Public Utility Commission** – Member, National Association of Regulatory Utility Commissioners Committee on Finance & Technology. President, Western States Conference of Public Service Commissioners. Leadership role in Trans-Alaska Pipeline Settlement Methodology Decision, Healy Clean Coal Power Plant Certification, rural utility development issues, rural utility capital formation, and power cost equalization (PCE) issues.
  - **Engineer, Fairbanks Municipal Utilities System** – Developed capital improvement program for FMUS coal-fired power plant, including upgrades to the coal and ash handling facilities and boiler feed-water systems. Lead engineer on electric utility divestment (GVEA) and natural gas conversion studies.

## Project Staffing

Mark A. Foster will lead the engagement for MAFA. He will direct the work effort and coordinate deliverables.