SB

161

[redacted]

ALASKA AEROSPACE DEVELOPMENT CORPORATION

KODIAK LAUNCH COMPLEX BUSINESS PLAN

This document reviewed and approved by

KPMG

By accepting the KLC Business Plan for review, you are agreeing that you will not provide copies nor share information contained within the Business Plan to anyone without express written permission from AADC.

EXECUTIVE SUMMARY

The Alaska Aerospace Development Corporation (AADC), a public corporation of the State of Alaska, is proposing to construct a commercial spaceport, the Kodiak Launch Complex (KLC), on 3,100 acres of State-owned land at Narrow Cape, Kodiak Island. Narrow Cape is an ideal location for launching small satellites into polar, high inclination and Molniya orbits. The development of the KLC has been supported and encouraged by the State of Alaska, the federal government, the communities of Kodiak Island and private aerospace companies.

The market for small satellites in polar low earth orbit (LEO) promises to explode. Numerous telecommunications companies have proposed launching LEO constellations of small satellites for global mobile communications systems, and the first launches of those satellites are scheduled for 1995. The KLC is targeting replacement and replenishment launches for those communications systems, as well as launches of small polar-orbiting federal, scientific and remote sensing payloads, with over 170 launches predicted in the next ten years. AADC expects the KLC to support six to ten launches per year by the year 2000.

"This launch site has considerable potential...the Kodiak site could possibly be the best polar launch site."

[illegible] (CEO)
Martin Marietta Corporation

The design and siting of the KLC facilities are complete. The KLC design represents the state-of-the-art in launch facilities: all-weather in-door processing, flexible, economical and adaptable to all current small rocket launch vehicles. The lower development, operation and maintenance costs for the KLC will translate into lower launch costs for KLC customers, who will enjoy the KLC's world-class launch facilities, strategic location and supportive community.

AADC has undertaken a comprehensive environmental analysis of Narrow Cape, and has conducted numerous community meetings on Kodiak Island to discuss the effects of the KLC. AADC expects to have its federal and state permits completed and to begin construction of the KLC some time in 1995.

AADC has been awarded a total of $1.85 million from the U.S. Air Force for the design and development of the KLC. AADC has received industry cash contributions and contracts in the amount of $310,000 and services it estimates worth at least $5 million. Aerospace companies across the country have contributed technical data and assistance to the KLC design. Alaskan companies have committed substantial services to the KLC including the provision to AADC of electrical power and telephone connections and installation of the entire telecommunications infrastructure for the KLC.

AADC is seeking a loan through a capital budget appropriation of $18 million to pay for the construction of the KLC. AADC proposed the following terms: a 20 year loan at zero to three percent interest with no interest or principle payments for the first five years. Although AADC's market analysis indicates a revenue stream capable of supporting a conventional loan, these terms will give AADC the flexibility to respond to unanticipated, below market pricing from competitors.

For this investment, Alaska will boast the first spaceport in the U.S. independent of Department of Defense controls and operational conflicts, with state-of-the-art facilities and a low-cost fee structure. With approximately four launches per year, the KLC

will break even - covering all of the KLC's operating expenses and the debt service on the appropriation. At six launches per year, a target AADC believes to be conservative and attainable by the year 2000, AADC expects to be able to fund all of the KLC operating expenses and debt service on the appropriation as well as AADC's operating expenses.

The benefits of the KLC will be significant. KLC operations and launch activities will bring more than 100 technical personnel to Kodiak for 30-60 days for each launch, use skilled and semi-skilled services on Kodiak and elsewhere in Alaska and inject as much as $5 million per year into the local economy. Educational opportunities relating to launch activities will be available for Alaskan elementary, secondary, undergraduate and even graduate students. Spin-off businesses are expected to provide further economic diversification, exploiting Alaska's scientific and engineering talent and facilities, superior location for warehousing and shipping, and need for remote monitoring and satellite imaging services.

> "I support the proposal submitted by the Alaska Aerospace Development Corporation (AADC) for the Air Force Dual Use Space Launch Facilities grant program. Numerous Alaskans ...and the Mayor of Kodiak Island Borough have shown their strong commitment to bring dual use aerospace launch capability to Kodiak."
>
> — Senator Ted Stevens

While this business plan presents the KLC as a State-owned and operated facility, it concludes with alternative exit strategies for the State: the State may contract with a private company to operate the facility; it may jointly venture the KLC; or it may sell the KLC, access to the facility, or an equity interest in the KLC to third parties. Any of these and other approaches will be considered by AADC. AADC will continue exploring such opportunities with major U.S. aerospace companies. Such a transaction could transfer operations of the KLC to the private sector, leaving the State with the oversight responsibility, easily handled by a single regulator who could be located in the Department of Commerce and Economic Development or elsewhere in the State Government, eliminating the need for AADC.

Ground control

In Fairbanks, a small but significant opportunity in the space business

As Alaska's oil bonanza at Prudhoe Bay plays out, the state must be alert for economic opportunities of any stripe, no matter how small or unconventional they may be.

Fairbanks is home to one intriguing space-age possibility.

It appears to be the best place on the continent for steering polar orbit satellites and relaying satellite data to Earth.

Fairbanks' advantage comes from a simple fact of geography. The farther north you are, the longer you can communicate with a satellite in polar orbit.

That fact gives Fairbanks an edge on two counts. First, any satellite, no matter where it's launched, needs occasional orbit adjustments to keep from falling back to Earth. Second, the longer you can contact the satellite, the more data you can "download" from it.

Having good air-cargo service, as Fairbanks does, is another plus. Some satellites generate so much data, it's cheaper to print out the information and ship it by air cargo, instead of using more expensive telecommunications.

As John Seibert, head of the state's Science and Technology Foundation, says of Fairbanks: "It's the farthest north (city) with a decent airport, a university and a (supercomputer."

Already, one firm wants to bring a portable satellite communications unit to Fairbanks, according to Pat Ladner, head of the state's Aerospace Development Corp.

He thinks that with a little help from the state, Fairbanks could see a lot more business in the field. That's why the space development authority would like to build a "satellite servicing" office park there.

Such a building would spare each firm from having to locate a site, get zoning and permit approvals, and install communication lines. All a satellite business would have to do is show up at the office park, plug in its computers, consoles and satellite dishes, and it would be ready to go. Rental fees would cover the state's construction and maintenance costs.

The space authority wants to start small, perhaps with only two "offices." But it plans to choose a site and a design that will allow adding "offices" as demand warrants.

Mr. Ladner says the space authority seeks $2 million in front money to pursue the idea. Funding sources might include the legislature, the Alaska Industrial Development and Export Authority, or perhaps even local government bonds.

Compared to the potential gain, the cost seems modest and the risk well within acceptable bounds. In the early jet age, Alaska's subpolar location enabled Anchorage to become the Air Crossroads of the World. Perhaps space-age opportunities will allow Fairbanks to become the Satellite Crossroads of the World.

ALASKA SCIENCE & TECHNOLOGY FOUNDATION
— Putting Innovation to Work for Alaska —

MEMORANDUM

TO: Representative Mark Hanley
Chair, House Finance Committee

FROM: Arliss Sturgulewski
Interim Executive Director

SUBJECT: Budget Information Requested

DATE: April 26, 1995

The following is budget information requested by your committee. We have utilized Senate numbers since they reflect more timely information than when the FY96 budget was submitted to the Governor.

	With LRCWF FY95	Without LRCWF FY96
Estimated Earnings Reserve, 6/30/95	3,723.3*	6,308.0*
Estimated FY96 Earnings	7,200.0	7,200.0
	10,923.3	12,508.0
University Agriculture Station	3,000.0	3,0000.0
Aerospace Development Corporation	611.3	611.3
ASTF Operating (Senate FY96)	1,282.5	1,282.5
ASTF Grants (Senate FY96)	6,217.5	6,217.5
Additional Grant $'s Available for Appropriation FY96	812.0	2,496.7
	10,923.3	12,509.0
Total Amounts Available for all Grants in FY96	6,129.6	7,714.2

*Revised estimate of ASTF FY95 and FY96 earnings based on information provided by Mr. Bustre on April 26, 1995.

4500 Diplomacy Drive, Suite 515, Anchorage 99508-5918

Telephone: (907) 272-4333
Fax: (907) 274-6228

SB 161
HB 315

LOCKHEED MARTIN

April 25, 1995

Pat Landner
Executive Director
Alaska Aerospace Development Corporation
3601 C Street Suite 1400
Anchorage, AK 99503

RECEIVED
APR 2 5 1995
Ans'd.....

Dear Pat,

It is time I let you know what progress we have made in developing a business strategy for the Lockheed Martin corporation relative to the launch complex at Kodiak Island.

As you know, after my visit to Juneau in March, I have had several discussions with the business development community in the Information and Technologies Sector. My trip report was briefed to Mr. Teets on April 5 th by Gary Mann Vice President Business Development.

On April 12 th we had a meeting to discuss the information you provided during your visit here on April 6 th. At that meeting we decided that there was more information needed relative to the facilities at Wallops Island and an understanding of what NASA may want to do with their operations. The attendees were Bill Derdock, Gerry Stanley, Jerry Fallin , Mike Johnson, Mike Zerolsky, Ken Branch, and me.

We went to a meeting with the Technical Director and the staff at Wallops Island on April 18 th. and the results of that meeting are generally that there is a business opportunity at that facility if we take the same approach we are contemplating with Alaska. In our estimation, when we couple the two sites together they make a very attractive opportunity for the corporation.
That meeting was attended by Jerry Fallin, Mike Johnson, John Bornholdt and me.
The plans we are developing internally are being discussed at the highest levels of the Lockheed Martin corporation. We have had several meetings with key business development people from three of the major sectors and hope to include the forth soon. In general terms we are evaluating the business potential of the sites and will make a recommendation to the corporation on how to best develop a partnership with the states of Alaska and Virginia that is mutually beneficial for all concerned. One of our goals is to have control of our own destiny when it comes to launch site availability and cost. We currently do not

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BY REQUEST

have that control using a government range and we look upon the launch facilities at Kodiak and Wallops as a vehicle for achieving that goal.

We met again on the April 24th in Titusville to report on the trip to Wallops and to assign action items for the next phase of our evaluation. Our schedule of events will take us to a presentation to Mr. Tellop and Mr. Augustine by the first of June. At that time we hope to have direction to complete a more detailed study and to open negotiations with Alaska and Virginia/NASA at Wallops Island. The attendees were: Bill Mallana (S&SMS), Mary Snitch (S&SMS), Jeff Snyder (S&SMS), Bill Derdock(S&SMS), Axel Hohl (S&SMS), Ron Sabatino (S&SMS), Garry Stanley (Special advisor to Gary Mann -I&TSS), David-Ellis Brown (I&TSS), Jerry Fallin (I&TSS), Dinty Moore(LSSI-I&TSS), Bob Atkins,(Manned Space-I&TSS)Mike Johnson(S&SMS), Mike Zarotsky(I&TSS), Ken Branch(S&SMS), and me.

Our focus today is somewhat limited and will expand as we gain knowledge and understanding. We are looking at becoming an advisor to Alaska and Virginia during Activation of the launch complexes and Ground station and then take over as the operating contractor for the state. We are considering a State Owned Contractor Operated Facility(SOCO).

I'm sure you can appreciate that we are doing is very sensitive from a business standpoint so I would ask you to be discreet in your discussion with others.

We will keep you informed and if you have any questions please feel free to call me any time.

Sincerely

Charles M. Rash
Manager, Advanced Programs
Canaveral Launch Operations
LOCKHEED MARTIN
(407)853-6968

SECRETARY OF THE AIR FORCE
WASHINGTON

SAF/AQQS(M)
1060 Air Force Pentagon
Washington DC 20330-1060

31 Mar 95

Mr. H. P. Ladner, Executive Director
Alaska Aerospace Development Corp.
3601 C Street, Suite 1400
Anchorage, AK 99503

Dear Mr. Ladner:

I appreciated the opportunity to meet with the Alaska Aerospace Development Corporation (AADC), Governor Knowles, and key members of the Alaska legislature.

As I explained in the meetings, the Air Force's Rocket System Launch Program (RSLP) is actively pursuing a contract with AADC. RSLP has taken the first step by issuing a work order contract to AADC in order to define RSLP requirements and AADC's capabilities. The next step will be to prepare a contract for up to 15 launches by RSLP from the Kodiak Launch Complex (KLC) over the next five years. I anticipate that with the approval of the Department of Defense budget in October 1995, RSLP will be able to book and pay for up to four launches by January 1996. However, before AADC and the State of Alaska can enter into a contract with the RSLP program, the Air Force must be assured that the KLC has the commitment and support of the State of Alaska, including financial and other assurances that it will be completed and available to support RSLP launches by the first part of 1997.

RSLP is excited by the progress that AADC has made and the extensive support that was displayed last week for KLC. We will continue to work with AADC and the State of Alaska to develop the KLC into an innovative and efficient launch site serving the most exciting part of the burgeoning launch market.

Very Respectfully,

Charles S. Pugsley III

CHARLES S. PUGSLEY III, Col, USAF
Chief, ICBM Modernization Branch
Directorate of Long Range Power Projection,
SOF, Airlift and Training Programs
Assistant Secretary (Acquisition)

Low-Rank Coal Water Fuel (LRCWF): "Environmentally Friendly Fuel of the Future"

Production/Utilization

Conceptual LRCWF Commercial Plant

- Non-hazardous quasi-liquid replacement for oil.
- Made from LRCs by Energy & Environment Research Center's (EERC) hot-water drying process.
- Non-evaporative, permanent moisture reduction, process similar to pressure cooking.
- Highly reactive fuel that ignites rapidly and burns completely with a stable flame.
- Requires only minor boiler modifications and has minimal derating.
- Process proven in EERC pilot plant, now ready for commercial demonstration.

Benefits to Alaska

- Increases Alaska's coal exports.
- Opens the Beluga Coal Field.
- 1 million tons per year (tpy) commercial LRCWF plant means about 250 new primary jobs.
- "Value Added" natural resource creates higher paying jobs.
- Increased State and Borough revenues.
- Helps reduce U.S. balance of payments to some of our largest creditor nations.

Why Now?

- Oil production is declining and other resources must be developed to sustain economic growth.
- Environmentally safe alternative fuels are needed.
- Commercialization of U.S. LRCWF technology by foreign developers would reduce or eliminate benefits to Alaskans

Environmentally Friendly

- Unlike petroleum based fuels, LRCWFs are non-hazardous to humans, flora and fauna if spilled.
- Eliminates the risk of multi-million dollar cleanup.

Valdez oil tanker

- Safely transported in single-hull barges or tankers.
- Reduced liability insurance.
- Ultra low sulfur Alaskan subbituminous coal, gives low SO_x emissions
- Eliminates dust and spontaneous combustion problems with LRC handling.

Market Potential

- Competitive with oil at about $17/bbl and bituminous CWF.
- Consumption by Pacific Rim utilities alone is equivalent to over 80 million tpy of LRCWF.
- CWF market expected to triple to 9 million tpy by the year 2000.
- Developing nations with low-rank coal reserves will seek technology licensing.
- Testing LRCs from around the world at Alaska's technology demonstration facility.

Demonstration Project

- Confirm the economic viability of producing & utilizing Alaskan LRCWF.
- Provide LRCWF to potential users for product acceptance and to instill user confidence.
- Pave the way for LRC use in the Pacific Rim.
- University of Alaska Fairbanks will be the host site for the demonstration project.
- Plant will become a long-term coal development and demonstration facility.

Funding Requirements

- Three year demonstration project to be funded by:
  - ➤U.S. DOE - $10.25 million;
  - ➤State of Alaska - $3.985 million;
  - ➤Balance of funding and equipment provided by Alaska CWF, Inc.

Alaska Coal-Water Fuel, Inc

Corporate Principals:

- ➤ Energy and Environmental Research Center
- ➤ Usibelli Coal Mine, Inc.

Consortium Affiliates:

- ➤ Alaska Division of Energy
- ➤ Alaska Industrial Development & Export Authority
- ➤ Alaska Science & Technology Foundation
- ➤ Beluga Coal Company (Placer Dome U.S., Inc. & Cook Inlet Region, Inc.)
- ➤ DRVen Corporation
- ➤ Energy Pacific Corporation
- ➤ International Coal Preparation Consultants, Ltd.
- ➤ [illegible] International
- ➤ [illegible] Engineering, Inc.
- ➤ [illegible] Native Corporation
- ➤ [illegible] University of Alaska Fairbanks

Alaskan Low-Rank Coal-Water Fuel

"Environmentally Friendly Fuel of the Future"

NORMA —

RANDY SIMMONS WILL BE REPRESENTING

AK INDUSTRIAL DEVELOPMENT AUTHORITY

ON SB161 today

LOW RANK COAL-WATER FUEL
(LRCWF)
DEMONSTRATION PROJECT

Questions and Answers

1.) Who will fund project?

* Alaska Science & Technology Foundation (ASTF)	$3.6 million
Federal (DOE)	10.3 million
Alaska Coal-Water Fuel, Inc.	8.1 million
	$22. million

* State (ASTF) funding grant will be contingent on receipt of $10.3 million in Federal dollars. No Federal $, then ASTF grant lapses and no State funds spent.

2.) Will State and Federal funds be paid back with successful project?

Yes, plus interest (rate yet to be negotiated).

3.) What are short-term benefits of project?

-- A $4 million State investment will be leveraged into a $22 million project which will be constructed and operated over a three year period.

-- With the exception of $5 million purchase and fabrication of equipment all remaining project moneys will be expended in Alaska.

-- During the 18 month operational period, the project will create approximately 23 new full-time jobs in the Fairbanks area.

-- The project will be located at the University of Alaska-Fairbanks. The manufacturing facilities, which have a value of approximately $7 million will remain at the university and be available for research purposes after the demonstration phase has been completed.

4.) What are the long-term benefits?

-- The primary, long-range objective of the Demonstration Project is to create an economically viable means to develop the Beluga Coal Fields and to be able to compete in the world coal market.

-- Development of a commercial scale LRCWF plant, dock and related infrastructure would be a $200 million project

and take two or three years to construct.

-- The LRCWF production facility would create a major value added industry and also increase Alaska's total coal exports.

-- Operation of the commercial plant and mine could create about 200 new, full-time, permanent jobs.

5.) Who will own the technology?

Alaska Coal-Water Fuel, Inc.

6.) Who are principals in Coal-Water Fuel, Inc.?

Corporate Principals:
Energy and Environmental Research Center
Usibelli Coal Mine, Inc.

Consortium Affiliates:
Alaska Division of Energy
Alaska Industrial Development & Export Authority
Alaska Science & Technology Foundation
Beluga Coal Company (Placer Dome, U.S., Inc. & Cook Inlet Region, Inc.)
DRVen Corporation
Energy Pacific Corporation
International Coal Preparation Consultants, Ltd.
Major International
POWER Engineers, Inc.
Tyonek Native Corporation
University of Alaska-Fairbanks.

7.) Who will be the project manager for the demonstration?

Alaska Industrial Development & Export Authority.

8.) What conditions must be met before ASTF will grant up to $4 million for the demonstration project?

1. $10.3 in Federal DOE funds

2. Other adequate private funding commitments

3. A suitable business plan

4. Identification of markets and end users for the fuel.

ALASKA INDUSTRIAL DEVELOPMENT
AND EXPORT AUTHORITY

ALASKA ENERGY AUTHORITY

480 WEST TUDOR ANCHORAGE, ALASKA 99503 907 / 561-8050 FAX 907 /561-8998

MEMORANDUM

To: Kurt Parkan
Special Staff Assistant
Office of the Governor

From: William R. Snell
Executive Director

Date: March 7, 1995

Subject: Low-Rank Coal-Water Fuel Demonstration Project

The following is a brief synopsis and status report on the Low-Rank Coal-Water Fuel Project:

Background & History

- Low-rank coal-water fuel (LRCWF) is a quasi-liquid substance made by combining finely ground, subbituminous coal with water and subjecting it to a high pressure process. The resulting product is non-toxic fuel which can be used as a direct replacement for heavy oil. Attachment No. 1 is a brochure which explains the process and the benefits of the product.

- Initial research into the LRCWF process was funded, in part, by the Alaska Science and Technology Foundation (ASTF) as a pilot project at the Energy & Environmental Research Center's (EERC) laboratory facilities in Grand Fork, North Dakota. The pilot project proved that a very high grade, clean burning LRCWF could be made from Alaskan subbituminous coal.

- Following the successful pilot testing, a consortium group comprised of several Alaskan businesses, coal experts and EERC was formed with the goal of commercializing the technology. In 1992, the consortium submitted a grant application to ASTF for proposed joint funding with the U.S. Department of Energy

and the consortium members. The purpose of the grant was to construct and operate a demonstration facility in Alaska. The overall program cost, including in-kind contributions by consortium members, was estimated at approximately $25 million.

The proposed Demonstration Project is intended to: 1) demonstrate on a commercial scale basis that LRCWF can be manufactured at a competitive cost; 2) establish through test burning, the product's combustion characteristics and performance in boiler applications; and 3) make the LRCWF product available in quantities of sufficient size to allow potential industrial users to perform test burns at their own facilities. (Attachment No. 2 provides additional background information on the Demonstration Project.)

AIDEA's Involvement

- Because of the size of the proposed Demonstration Project, ASTF approached AIDEA in November 1993, seeking assistance and participation in the project as the Grant Recipient and administrator of the project (see Attachment No. 3). AIDEA's Board in February 1994, approved our participation in the initial phase of the project.

- The Demonstration Project is divided into two phases. Phase 1, which is currently in progress, is designed to formally organize the consortium, perform additional market assessments, firm up cost estimates and prepare the grant application for DOE participation. Phase 2 will be the actual construction and operation of the plant.

- Phase 1 work is currently in progress and will be complete by early April 1995. Our involvement in Phase 2 will be subject to the results of Phase 1, receipt of federal participation, continued ASTF grant funding and Board approval. It is assumed that AIDEA would again serve as the grant recipient under Phase 2.

Funding Status

- The total cost for Phase 1 of the project is $429,200. Of this amount, $185,000 are grant funds from ASTF. In addition to the ASTF grant, AIDEA is contributing $30,000 and the consortium members are contributing in-kind services and matching funds in the amount of $214,200.

- Subject to the successful conclusion of Phase 1 and several additional conditions, ASTF has approved another $3,615,000 toward Phase 2 of the project (see Attachment No. 4).

- The total cost of Phase 2 is currently estimated at approximately $22,000,000. Federal funding in the amount of $10,250,000 is being sought in the form of a grant through DOE. In addition to the ASTF grant amount, the balance of $8,075,000 will be made up as contributions from consortium members (see Attachment No. 5). Although AIDEA may participate in Phase 2 as the Grantee, we do not anticipate making any further contributions of AIDEA funds toward the project.

- To apply for the DOE grant and have any reasonable hope for securing federal participation, it will be essential that the State of Alaska show a strong financial commitment toward the project. Although ASTF has tentatively committed to funding the full amount requested, due to certain statutory limitations governing the split of funding between large projects and small projects, ASTF may not be allowed to obligate the full amount in a single year without legislative approval.

Project Benefits

- The potential benefits of the project to Alaska fall into two major categories: 1) short term benefits generated during the three year demonstration period; and 2) long term benefits if the demonstration project is successful and results in the development of a commercial scale LRCWF plant.

- Short Term Benefits:

  - A $4 million state investment will be leveraged into a $25 million project which will be constructed and operated over a three year period.

  - With the exception of $5 million purchase and fabrication of equipment all remaining project moneys will be expended in Alaska.

  - During the 18 month operational period, the project will create approximately 23 new full time jobs in the Fairbanks area.

  - The project will be located at the University of Alaska-Fairbanks. The manufacturing facilities, which have a value of approximately $7 million will remain at the University and be available for research purposes after the demonstration phase has been completed.

- Long Term Benefits:

- The primary, long-range objective of the Demonstration Project is to create a economically viable means to develop the Beluga Coal Fields and to be able to compete in the world coal market.

- Development of a commercial scale LRCWF plant, dock and related infrastructure would be a $200 million project and take two or three years to construct.

- The LRCWF production facility would create a major value added industry and also increase Alaska's total coal exports

- Operation of the commercial plant and mine could create about 200 new, full-time permanent jobs.

- It is worth noting that, even if the Demonstration Project does not result in the commercialization of the technology, Alaska will receive all of the short-term benefits at a total investment cost of only $4 million.

Hopefully the above information provides you with a basic understanding of the project and some of the issues at hand. Should you have any questions, or require any specific details regarding the project, please give me a call.

cc: John W. Sibert

hall\dave\cw4memo

ALASKAN LOW-RANK COAL-WATER FUEL DEMONSTRATION PROGRAM

Background

The technical feasibility of producing a premium low-rank coal-water fuel (LRCWF) from an Alaskan subbituminous coal from Beluga Coal Co.'s leases west of Anchorage, AK, was demonstrated using the hot-water drying (HWD) process developed at the Energy and Environmental Research Center (EERC). LRCWF made in the EERC pilot plant was tested in the EERC Combustion Test Facility giving almost complete carbon burnout, low boiler-tube fouling and SO_2 emissions well below even the most stringent air quality standards.

Beluga coal is part of a deposit around and under the Cook Inlet near Anchorage, AK that contains approximately 1.5 trillion tons of low-sulfur subbituminous coal. It is thought to be the largest, lowest-cost, ultra low S coal near tidewater in the world.

Market Potential

To avoid potential misunderstanding of marketing goals, it should be noted that LRCWF is designed to replace heavy oil and/or bituminous CWF in existing oil-fired boilers, not bulk steam-coal. The use of CWFs is being aggressively pursued in China, Italy, Japan and Russia to produce a lower-cost, more stable supply of liquid fuel that can be substituted for heavy oil in industrial and utility boilers. In addition, since CWF is simply coal suspended in water it is, in contrast to oil, a non-hazardous quasi-liquid fuel that has no long term negative environmental impact should a major spill occur.

The magnitude of the potential market for coal-water fuels can be gauged by the consumption levels of heavy oil in electric utilities in Japan, Korea, and Taiwan alone. In 1990 the combined total of 200 million barrels of oil used by utilities in these countries was equivalent to about 80 million tons of LRCWF.

Process Economics

LRC characteristics and site specific requirements have a profound effect on costs associated with their conversion and utilization as LRCWFs. For these and other reasons, accurate LRCWF production/utilization economics can only be derived after completion of demonstration-scale testing and a thorough analysis of the commercial site specifics. However, for production of 1MM tpy LRCWF near the Beluga mine site, pipeline transportation to a mono-buoy in Cook Inlet, and ocean transport to Japan, our best estimate of the range of costs in dollars per million Btus, CIF Japan, is between $2.68-$3.84 U.S. The economic success of a LRCWF venture will mainly be determined by the price of heavy oil, although benefits that are difficult to quantify and could become important factors include, environmental safety, price stability and secure supply.

Alaska Coal-Water Fuel Inc.
(907)696-4775; Fax (907)696-4776
12212 Old Glenn Hwy., #8
Eagle River, AK 99577

Demonstration Program

The next step in commercialization is to demonstrate the technology at a large enough scale to provide potential LRCWF users with sufficient data to develop their own economic analysis and LRCWF for testing in their own facilities. There is a unique opportunity to demonstrate this technology at the University of Alaska Fairbanks Power Plant (UAF), at a fraction of the cost and time it would take to build a new facility. UAF will participate in the demonstration and make their facilities available as a significant portion of the cost share for the project.

The project principals are: Usibelli Coal Mine Inc., owner of Alaska's only operating coal mine; EERC, developers of the LRCWF production/utilization technology; Beluga Coal Co. (a subsidiary of Placer Dome U.S. Inc. and Cook Inlet Region, Inc.), one of the large coal lease holders in the Beluga field and UAF, owner of the host site. Project affiliates include: Alaska Division of Energy; Alaska Industrial and Export Authority; Alaska Science & Technology Foundation; DRVen Corp.; Energy Pacific Corp.; International Coal Prep Consultants, Ltd.; Major International; POWER Engineers, Inc.; Tyonek Native Corp.; and the University of Alaska Anchorage.

Funding for the three year demonstration will consist of the following: The Alaska Science and Technology Foundation have conditionally agreed to provide about $4MM and slightly more than $10MM is being sought from the U.S. Department of Energy. The balance, which includes, the technology, part of the facilities, much of the equipment, all of the test coal required for 18 months of operation, some of the engineering and operating manpower, and site permitting information will be provided by the participants through their recently formed corporation, Alaska Coal-Water Fuels, Inc.

CWF Use Assessment

The nominal 150 tpd hot-water drying (HWD) plant will produce about twice the amount of fuel needed to run the oil-designed boiler in the demonstration plant. Extra fuel will be available for transportation and end-use testing at potential LRCWF users facilities, possibilities include, CWF-fired diesel engines, small coal-fired boilers for remote sites, slurry-fed gasifiers, slagging combustors and a variety of oil-designed boilers

Alaska Coal-Water Fuel Inc.
(907)696-4775; Fax (907)696-4776
12212 Old Glenn Hwy., #8
Eagle River, AK 99577

COPY

Archive

ALASKA SCIENCE & TECHNOLOGY FOUNDATION

— Putting Innovation to Work for Alaska —

March 15, 1995

The Honorable Governor Tony Knowles
PO Box 110001
Juneau, AK 99811-0001

Dear Governor Knowles:

RE: ASTF Project 91-3-183
Low Rank Coal Water Fuel Demonstration Project

The Alaska Science & Technology Foundation (ASTF) is presently assisting in the analysis of whether Alaska's sub-bituminous coal can be used to profitably produce a low rank coal water fuel (LRCWF) for domestic and export markets.

This project started out as a series of proposals to the Foundation by the Consortium representing the project, consisting of the Energy and Environmental Research Center (EERC) in North Dakota, Usibelli Coal Mine, Inc., and Beluga Coal Co. The pilot research was funded by ASTF and was conducted by EERC in North Dakota. After examining the nature of the demonstration proposal, it was determined that AIDEA would be a more appropriate agency to represent the state in the development of this project, principally in terms of their past experience in large economic development projects such as this project. In March 1994, AIDEA, as project manager, submitted a proposal to the Foundation for the low-rank coal water fuel project (91-3-189). The purpose of this project is to design, construct, and demonstrate a facility using low-rank coal water fuels in Alaska.

ASTF is funding the low-rank coal water fuel project in two phases. The decision to fund the project was based upon the proposal submitted to the Foundation, the technical reviews received by the Foundation, and consideration by the Board. The Board approved a two-phase grant designed to help the consortium reach a consensus on the outstanding issues while encouraging a broad-based approach to maximize the leverage of state funds and successfully develop and commercialize the LRCWF technology. Phase One addresses resolution of issues surround the legal structure of the project, development of a business plan, and other efforts leading to the preparation of a proposal to the U.S. Department of Energy for the bulk of the project funding. Phase Two, if approved and funded by the ASTF Board, will involve the design, construction, and testing of an actual production prototype facility.

ASTF's Board of Directors has approved $186,000 of funding, matched with $244,200 of funding from AIDEA ($30,000) and the consortium ($214,200), for Phase One. Phase Two funding will depend upon the successful completion of a

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number of required conditions. Those conditions included adequate funding commitments, a suitable business plan, identification of suitable markets and end users for the fuel, and the ability of ASTF under its statute to make the grant payments to the project as scheduled. ASTF funding of $3,615,000 for Phase Two would be matched with approximately $10.2 million from the Department of Energy and $11.0 million from other sources, including the consortium members.

ASTF believes the LRCWF has the potential to open new markets for Alaskan coal. ASTF also believes that with an appropriate structure, detailed planning and market research, commitments from interested end users, and sufficient funding from the U.S. Department of Energy and other private and federal funding sources, this project can be of great benefit to the State through an alliance of Alaska State agencies, private entities, and the federal government. State funds can be leveraged to determine the viability, both technically and financially, of producing low-rank coal water fuel from Alaskan coal.

If you have any questions, please feel free to contact either myself or Robert E. Harris, Director of Technology, at 272-4333.

Cordially,

Arlis Sturgulewski
Interim Executive Director

cc: Kurt Parker, Special Assistant to the Governor
Riley Snell, AIDEA

ALASKA SCIENCE & TECHNOLOGY FOUNDATION
—Putting Innovation to Work for Alaska—

November 2, 1993

Mr. Herb Lang, Chairman
Alaska Industrial Development &
Export Authority
480 West Tudor Road
Anchorage, Alaska 99503

Dear Herb:

For the past several years The Alaska Science & Technology Foundation has been interested in the development of Alaska low-rank coal/water fuels (LRCWF). This technology involves high temperature hot water drying of Alaska coal and slurrying of the product with water and a small amount of additive for stability. The resulting product has characteristics similar to heavy fuel oil and can be burned in boilers designed for residual oil fuel with minor modifications.

LRCWF made from Alaska coal has significant advantages over bituminous coal slurries in that it is cheaper to process and has very low sulfur and ash content. It apparently has a cost advantage over residual oil, and it is relatively environmentally benign compared to oil if it is spilled. Hawaii, Japan, Korea, and China are among the potential users of this product for power generation.

Successful development of a cost effective technology for production of LRCWF using Alaska coal could create both a market opportunity and a competitive advantage for Alaska's vast reserves of low rank coal. The potential payoff to the state of Alaska resulting from the successful commercialization of such a technology could be enormous. However, there are significant technical and market risks that will be encountered in such a program.

The initial research to investigate the slurrying and burn properties of Alaska coals was funded by ASTF at the Energy and Environmental Research Center (EERC) in Grand Forks, North Dakota, about three years ago. This pilot scale project showed that the LRCWF from Alaska coal had many superior properties when compared to other coals. The process used proprietary technology unavailable to the competition. The research was soundly grounded on hundreds of millions of dollars of coal/water fuels research conducted under the USDOE over the past 15 years.

A proposal for a grant to construct a large-scale LRCWF demonstration plant was submitted to ASTF about one year ago by a group which includes EERC, Usibelli Coal Mine Company, Placer-Dome, AEA, Hobbs Industries, and a few others. The

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Telephone: (907) 27[illegible]
Fax: (907) 274-6[illegible]

Attachment No. 3

group proposed the formation of a consortium to commercialize the LRCWF technology. The consortium would acquire the intellectual property rights to the proprietary LRCWF technology developed at EERC, construct a demonstration scale plant to produce LRCWF, and assuming successful up scaling of the technology, would pursue full-scale commercialization of the process using Alaska coal from the Beluga fields.

The proposal requested $3,985,000 from ASTF with $11,035,000 in mostly in-kind funding from the proposers and the potential for $10,245,000 from the U.S. Department of Energy. The ASTF board responded to the initial proposal by stating that LRCWF technology was potentially important for the development of Alaska coal resources, and that the proposed program had merit, but that successful commercialization of the technology would require more focus on the marketplace and should involve the next-stage investors. The board also requested additional information about the consortium.

In its discussion of this issue, the ASTF board concluded that the state of Alaska, as the major resource owner, should take a meaningful position in the commercialization of this technology. If substantial state funds were to be spent (through ASTF or other sources) the state should have a significant ownership interest in the resulting intellectual property and should be in a position to apply the process to the development of all of Alaska's coal resources.

Subsequent to its initial consideration of the proposal, the board received additional information from the applicants and reviewed the revised application at its August meeting. At that time the board declined to fund the project. The board concluded that the project was technology driven, rather than market driven, that there was no participation by potential end users, and that the existing applicants were not adequately positioned to carry the project to the level of full commercialization if the demonstration were successful.

Subsequently, the applicants requested that ASTF reconsider its decision. This request was supported by letters from a number of state officials including Commissioners Fuhs and Blatchford. These letters all cited the potential payoff to the state if the project were to result in successful commercialization of Alaska's coal resources. At its September meeting the ASTF board agreed to reconsider its August decision.

Upon further discussion the board concluded that ASTF is appropriately positioned to assess the technology risk and fund the technology development piece of this project but that ASTF is ill suited for a market development role. We have neither the staff nor the expertise to oversee large development projects.

The ASTF board concluded that it is willing to invest up to $4 million in LRCWF technology under appropriate conditions, one of which is that AIDEA be responsible for the administration of the demonstration project and take the lead in providing business direction for the venture. The essential elements for ASTF to proceed with this project are as follows:

1. ASTF will provide funding to AIDEA as the grantee. By statute, our assistance is restricted to providing competitive grants. As discussed above, ASTF has expertise in assessing and funding technology

development, not in funding large economic development projects. It is the expectation of ASTF's Board that AIDEA will own the project initially, with a structure permitting some form of equity participation or profit-sharing with investors and/or strategic partners, as discussed below. AIDEA will determine the fair value of and structure for such equity participation.

2. **The grant will be funded in two phases.** The first phase will fund the formation of the consortium, the development of the commercialization plan and whatever market studies AIDEA deems necessary to analyze the prospects for the technology in the marketplace. The bulk of the grant funds will be provided in the second phase for development of the demonstration project.

3. The grant will be pursuant to ASTF's standard grant agreement.

4. **The project must receive $10 million in federal funds as a coinvestment.** This coinvestment must occur prior to or coincident with ASTF's funding of the second phase of the grant. No federal coinvestment is required for phase one. ASTF is not placing any minimum requirements on private coinvestment. Instead, we are relying on AIDEA to assess the fair market value of such private participation and compensate it proportionally through the ultimate returns from the project either through an equity participation in the consortium or some other means.

5. **The State must receive ownership of all intellectual property rights, and other grant participants must provide contributions of technical talent and resources.** ASTF always requires coinvestment to leverage its grant funds. The contribution of technical talent and resources to the project is an important source of leveraging of ASTF's resources. Because AIDEA will own the project, it is also important that AIDEA receive all intellectual property rights. Rather than splitting up those rights, ASTF would like to see some form of equity participation or royalty sharing with those key strategic members of the project. ASTF believes that the most appropriate form of sharing with other participants is one that will only pay out from the ultimate successful commercialization of the project. ASTF's view is that participants should receive significant returns only out of the economic success of the project, not out of the grant moneys.

6. **Involvement of strategic partners should be encouraged.** AIDEA should use its best efforts to include potential users, technology partners, potential suppliers such as shippers, and equity investors in the ownership and/or profits of the project. AIDEA's statutes appear to provide broad flexibility in structuring this project, and ASTF's concerns about involvement and leverage would be addressed by a broad range of structures, including formation of (1) a corporation and the sale of equity to third parties, (2) a joint venture or other partnership, or (3) contractual arrangements providing for similar investment by and returns to third parties. A key aspect from ASTF's perspective is the involvement of users of the coal product to be developed by this project.

7. *Payment of grant funds will be contingent upon receipt by ASTF of annual funding of its grants budget to the extent of its annual endowment earnings. ASTF's Board is interested in funding this project because of the potential returns to the State. However, the project would be by far the largest that ASTF has funded and would represent a very substantial portion of its grants budget over the relevant period. This is a potentially important technology, but ASTF is not interested in funding this project to the exclusion of all other projects important to the State.*

8. *ASTF must receive a legislative waiver of its small grants requirements. ASTF's statute requires that half of all grant funds distributed in a fiscal year must be for grants of $100,000 or less; ASTF could not comply with that requirement and fund the LRCWF project.*

ASTF is prepared to proceed expeditiously with the funding of this project following preparation of the appropriate grant applications and contractual documents. While this letter indicates the intention of the ASTF board, it does not bind the Foundation to the funding of this project. That can only occur by an action of the full board following receipt by ASTF of appropriate applications.

I hope that AIDEA will see the merit in the proposed project and work with ASTF to bring about the successful development of LRCWF technology for Alaska coal.

Sincerely,

Ronald A. Duncan
Chairman of the Board

cc: AIDEA Board
STF Board

MISCLANG

ALASKA SCIENCE & TECHNOLOGY FOUNDATION

— Putting Innovation to Work for Alaska —

March 30, 1994

RECEIVED
APR 4 1994
Alaska Industrial Development and Export Authority

William R. Snell
Executive Director
Alaska Industrial Development and Export Authority
405 W. Tudor Avenue
Anchorage, Alaska 99507

Dear Mr. Snell:

Re: ASTF Proposal Number 91-3-189
Power Generation from Alaska Low-rank Coal-water Fuels—Commercial Demonstration Project

This letter is to confirm the action taken by the ASTF Board of Directors on March 21, at which they adopted the following resolution:

"RESOLVED that Proposal 91-3-189 submitted by AIDEA for the funding of the Low-rank Coal-water Fuel Project (the "Project") is approved as follows:

"1. ASTF grants up to $185,000 to Alaska Industrial Development & Export Authority (AIDEA) pursuant to a grant agreement with terms acceptable to the Executive Director of ASTF for the initial study and development of the Project as determined by the Executive Director of ASTF (Phase I);

"2. ASTF grants up to $3,615,000 to AIDEA upon satisfaction of all of the following conditions (Phase II):*

A. Successful completion of Phase I;

B. Approval by ASTF's Board of Directors of the proposal to be submitted by the project to the U.S. Department of Energy (DOE), approval by the DOE of that proposal and agreement by the DOE to fund the project in an amount of not less than $10 million;

* *The fact that this amount is not the total requested can be addressed when the Board considers whether to go forward with Phase II.*

C. Approval by ASTF's Board of Directors of the final business plan for the project;

D. Revision of ASTF's legislation (AS 37.17) as proposed by ASTF, including permitting 50% of ASTF's grants by number to exceed $100,000 each and the collection by ASTF of royalties on all income produced with ASTF grant funds;

E. Binding commitment to the project of the site for the project demonstration;

F. Binding contracts for all aspects of the commercial activities of the project, including commitment from one or more energy producers to participate in the project;

G. Execution of a grant agreement with terms acceptable to ASTF's Executive Director."

As you know, ASTF has met with Dave Eberle and members of the Consortium to discuss the Board's expectations. The attached two pages were developed in that effort and explain further the items ASTF will be judging at the end of Phase I. Please let us know if anything is unclear.

On a different topic, we have noticed that you signed section c of Form G requesting confidentiality for project results. This section states that you "...attached a description of the information for which confidential material status is requested and the required justification for this request." However, I am unable to find this description or justification.

Enclosed is a copy of ASTF's confidentiality guidelines. Please note that the last paragraph states that "Information developed under a grant from ASTF is public information unless confidentiality is requested and granted prior to the award of the grant. If confidentiality is desired for Phase II, please be certain to provide the necessary description and justification along with the other Phase I deliverables. ASTF has to go through all these convolutions because it doesn't have the right to protect trade secrets like AIDEA does.

If I can be of further assistance, please do not hesitate to call me at 272-4333.

Cordially,

Ann M. Kampfer
Grants Manager

Enc: Confidentiality Guidelines
Phase I Tasks

ATTACHMENT NO. 5

FINANCING AND DEVELOPMENT SCHEDULE

Phase I, $429,200

ASTF has already funded $185,000 of Phase I of this project. AIDEA has contributed $30,000. The private-sector consortium members have contributed in-kind services and matching funds totaling $214,200. Phase I will be complete in early April 1995.

Phase II, total funding $22,000,00

Proposed funding breakdown:

$10,250,000	Federal DOE grant
$ 8,075,000	Private sector contributions
$ 3,900,000	State contingent match (ASTF) (ASTF already has set aside)

- Complete Phase 1 Business Plan for submittal to ASTF - April 1, 1995.
- Receive ASTF Board approval for phase two funding $3.8 million - April 15, 1995.
- Finalize Federal funding source and submit proposal package (either piggy back existing CCT projects, or direct appropriation) $10.25 million - April - May, 1995.
- Begin negotiating ASTF/AIDEA/AK CWF, Inc. contract - May 1995.
- Federal funding approval June - July 1995.
- Forward fund $1.25 million of ASTF funds, to AIDEA, with conditions that federal funds must be committed prior to being disbursed - Must be done by June 1995.
- Negotiate Federal contract July - August 1995.
- Select A&E and begin detail design - July 1995.
- Order long lead time items - September 1995.
- Initiate permitting - September 1995.
- Begin PICO bldg upgrades - October 1995
- Start module fabrication - March 1996
- Site construction - May 1996
- Begin shake down - September 1996
- Begin operation - April 1997 - August 1998

TIM BRADNER

Coal technology gives Alaska the chance to be there first

We've heard it often said that Alaska is the Saudi Arabia of coal. We have trillions of tons of the stuff. But as I heard one coal-project manager put it to state legislators in Juneau recently, that's about like saying Alaska's huge coastline makes it a hot prospect for new beach resorts.

Unfortunately, a lot of other regions have coal, and in places a lot easier to mine and closer to markets. What we need to do is get smart and make something out of our coal that makes it more valuable, easier to move and then sell it to a different market.

We may be on the verge of that. A small group of companies with Alaska coal holdings is working with the University of North Dakota's Energy and Environmental Research Center and University of Alaska Fairbanks in an effort to build a pilot plant to produce a low-rank coal-water fuel.

This is a liquid-fuel product of coal particles mixed with water through a proprietary process developed by North Dakota's EERC.

Once manufactured in a plant, ideally located near a coal mine, the product could be moved by pipeline and loaded on a tanker, a process less costly than moving dry coal. The product could be sold as fuel to customers like large power utilities. Thus, a coal-derived product would be competing against residual fuel oil in a new market.

The manufacturing process has been demonstrated in laboratory tests. The participants, including the EERC and Usibelli Coal Mines Inc. of Fairbanks, have formed a company, Alaska Coal Water Fuel Inc., that would build the pilot plant and own the proprietary technology.

The Alaska Science and Technology Foundation has aided the project with a $185,000 grant to pay organization and planning costs, and it has committed $3.5 million toward $14 million needed to develop a pilot plant capable of producing 150 tons per day. Alaska Industrial Development and Export

Please see Page C-2, BRADNER

BRADNER: Liquid-fuel coal technology explored

Continued from Page C-1

Authority is working with ASTF as a project manager.

If the money can be raised, the pilot plant would be located in a coal-fired power plant at the University of Alaska Fairbanks. The pilot will allow project participants to compile actual operating-cost data, which would be used to assess the feasibility of a full-scale production plant.

A full-scale plant would probably produce in the range of a million tons a year of coal-water fuel and would be best located near a large coal deposit and near tidewater. For the first plant, that means the Beluga coal field, across Cook Inlet from Anchorage.

There are some intriguing things about this project, some reasons why it's strategically important to Alaska, and why an Alaska coal-water fuel project has competitive advantages.

Interestingly, tests of coal-water fuels by the U.S. Department of Energy show that a fuel made from low-rank or lower-quality, coal like Alaska's abundant sub-bituminous coals burns more efficiently than a fuel made of a higher-grade coal, like bituminous. That's because of the different chemical characteristics of the coals.

Another advantage: Alaska's sub-bituminous coal is very low in sulfur, which means a fuel product made from the coal will be in demand among utilities facing new air-pollution control requirements.

For the product in general, there's also an important environmental advantage. A spill of coal-water fuel doesn't pose the same environmental threat as a heavy-fuel oil spill because coal doesn't contain many of the toxic components in found in oil.

So why aren't big oil and mining companies rushing into such a great deal?

Well, there is interest. U.S. oil companies poured hundreds of millions of dollars into coal-fuel technologies in the years of high oil prices, but lower prices and the recent downsizing in the industry forced the industry to focus on its core business of producing and refining crude oil.

A lot of the industry's efforts also were aimed at working with higher-ranked coals. The EERC, in North Dakota, is one of the few research groups that focused on lower-ranked coals and succeeded.

Japanese companies are reported close behind the EERC in developing a similar coal-water fuel technology. But why let the Japanese do it? If the Alaska group, working with the EERC, can get the technology proved first and into the market, Alaska reaps the benefits of having the plants, and jobs, here.

And unlike many other state development efforts, there's also the possibility that the Alaska Science and Technology Foundation might share in some of the profit. In return for putting seed money into this project, the foundation may be able to get a small royalty on sales of the resulting technology.

Tim Bradner writes for an Alaska economic reporting service. His private clients include petroleum companies. His opinion column appears every fourth Sunday.

AMENDMENT

OFFERED IN THE SENATE BY SENATOR

TO: SB 161

Page 1, line 1, following "relating to the":

Insert "Alaska Science and Technology Foundation and to the"

Page 1, line 2:

Delete "and"

Page 1, line 4 following "project":

Insert "; and relating to a feasibility study to be conducted concerning the establishment of a Challenger Learning Center for the study of science and technology"

Page 4, following line 2:

Insert a new bill section to read:

"* Sec. 8. CHALLENGER LEARNING CENTER FEASIBILITY STUDY. The Alaska Aerospace Development Corporation shall conduct a feasibility study on the technical, financial, and economic feasibility of establishing in the state a Challenger Learning Center that is for the study of science and technology and that is modeled after the Challenger Learning Center program established by the Challenger Center for Space Science Education. The feasibility study shall consider various locations for the center. The costs of the study shall be paid as follows:

(1) one-half the Alaska Aerospace Development Corporation and the Alaska Industrial Development and Export Authority; and

(2) one-half by the municipalities desiring consideration as possible locations for the center."

No. 1

Bill Version: SB 161

(S) Publish Date: 4/20/95

FISCAL NOTE

STATE OF ALASKA

BIL

1995 LEGISLATIVE SESSION

Revision Date: April 19, 1995

Department: Commerce and Economic Development

Title: ...financing of technological developments by public corporations of the state; and relating to the financing of the Kodiak...

BRU: AK Industrial Development & Export Auth

Component: AK Industrial Development & Export Auth

Sponsor: Senate Rules

Requestor: Governor

COMPONENT SERIAL NO. 1234

Expenditures/Revenues (Thousands of Dollars)

OPERATING EXPENDITURES	FY 96	FY 97	FY 98	FY 99	FY 00	FY 01
PERSONAL SERVICES						
TRAVEL						
CONTRACTUAL						
SUPPLIES						
EQUIPMENT						
LAND & STRUCTURES						
GRANTS, CLAIMS						
MISCELLANEOUS						
TOTAL OPERATING	0.0	0.0	0.0	0.0	0.0	0.0
CAPITAL EXPENDITURES						
CHANGE IN REVENUES						

FUND SOURCE (Thousands of Dollars)

1002 Federal Receipts						
1003 GF Match						
1004 General Fund						
1005 GF/Program Receipts						
1006 GF/MHTIA						
Other						
TOTAL	0.0	0.0	0.0	0.0	0.0	0.0

Estimate of any current year (FY 95) cost: $ _____

POSITIONS

FULL-TIME						
PART-TIME						
TEMPORARY						

ANALYSIS: (Attach a separate page if necessary)

Prepared by: William R. Snell, Executive Director — Phone: 561-8050

Division: AK Industrial Development & Export Authority — Date: April 19, 1995

Approved by Commissioner: William L. Hensley — Date: April 19, 1995

Agency: Commerce and Economic Development

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163

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GOVERNOR

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STATE OF ALASKA
OFFICE OF THE GOVERNOR
JUNEAU

April 20, 1995

The Honorable Drue Pearce
President of the Senate
Alaska State Legislature
State Capitol
Juneau, AK 99801-1182

Dear President Pearce:

Under the authority of art. III, sec. 18, of the Alaska Constitution, I am transmitting a bill that would improve the ability of public corporations of the state to finance technological developments.

This bill amends AS 37.17 to facilitate the Alaska Science and Technology Foundation's (ASTF) development of commercial uses for technological developments, among its other purposes. These amendments will assist state agencies and public corporations such as the Alaska Aerospace Development Corporation (AADC) and the Alaska Industrial Development and Export Authority (AIDEA) in technology-related development projects. ASTF would be able to provide guidance through its established peer review system and grant review process, as well as financial assistance to projects meeting its technological and business criteria.

Existing AS 37.17.090(d) requires that at least 50 percent of the ASTF endowment income that is distributed by ASTF in a fiscal year must be for grants of $100,000 or less. Section 3 of the bill would exempt two grants to AIDEA or AADC from that requirement. Absent this exemption, ASTF would be limited to providing only minor financial assistance to projects of potentially great benefit to the state. One of the two grants is for development of the Kodiak launch complex and Fairbanks satellite ground station space park. The second grant is for development of low-rank coal water fuel technology. It is anticipated that the grants from ASTF for these projects may be phased in.

Section 5 of the bill also provides ASTF with more flexibility to ensure a fair financial return to the state based upon the value derived by the grantee from the ASTF grant. The bill replaces the current narrow language of AS 37.17.090(g), restricting ASTF to a return from "royalties, licenses, and patents", with broader language acknowledging that grantees can gain significant economic benefit from an ASTF grant without ever earning

income from royalties, licenses, and patents. For example, ASTF could receive a return from AADC for the operation of the Kodiak launch facility. Section 5 provides ASTF with additional protection for its investments by the addition of language allowing ASTF to take a security interest in, and own, patents, copyrights, and other intellectual property to secure payment of sums owed to ASTF under a grant agreement.

The bill continues to require that the revenue received by ASTF be paid into the principal of the endowment, subject to AS 37.07. The bill allows ASTF to tailor each "return" provision to the specific circumstances of the grantee. Under this provision, ASTF is able to receive a fair return where the grantee is going to manufacture and sell its own products based upon ASTF technology. ASTF is also able to receive a fair return based upon the growth in the grantee's business based upon the ASTF grant.

The bill improves ASTF's ability to protect sensitive commercial information it receives through the grant process. Section 4 of the bill amends AS 37.17.090(f) to allow the board of ASTF to adopt administrative regulations necessary to protect trade secrets and other proprietary information submitted to ASTF from disclosure under AS 09.25.110 - 09.25.120. These regulations would be adopted by the board under standards developed to protect the interests of the state and the prospective grantees.

The bill also contains a section authorizing AIDEA to issue up to $20,000,000 in bonds to finance the development of the Kodiak rocket launch complex and the Fairbanks satellite ground stations, or to finance these projects by other means available to AIDEA. This section also includes a limitation that the board of directors of AIDEA and AADC must each determine that there is sufficient commercial interest and financial viability to support the debt service and costs of the facility before money may be expended for any phase of construction.

I urge your prompt consideration and passage of this bill.

Sincerely,

Tony Knowles
Governor