August 1, 2001

Ms. Karlene Fine
Executive Director & Secretary
Industrial Commission of North Dakota
600 East Boulevard Avenue
State Capitol, 10th Floor
Bismarck, ND 58505-0310

RE: Submittal Letter and North Dakota Lignite Research Program Proposal
"Lignite Vision 21 Feasibility Project " by Great Northern Power Development L.P.

Dear Ms. Fine:

As a follow-up to the electronic PDF file transmitted to you today, please find six hard copies of the above subject proposal, which Great Northern Power Development L.P. is submitting to the North Dakota Industrial Commission for consideration under the Lignite Research Program. This letter represents a binding commitment by Great Northern Power Development L.P. for completion of the project as described in the proposal. Also enclosed is a check made out to the State of North Dakota as payment of the $100 application fee.

Our overall approach on this project is fast track and we respectfully request the Industrial Commission and the Lignite Research Council's consideration of reducing the review and approval time frames. The expeditious review and approval will greatly facilitate project progress, which, in turn, will benefit the State and its constituents by providing the economic benefits in a more timely fashion.

Sincerely,

Gerald E. Vaninetti
President, Great Northern Power Development L.P.

Enclosures

cc: w/o enclosures
C. Porter
R. Voss

GRANT APPLICATION
for a LIGNITE VISION 21 FEASIBILITY PROJECT
by GREAT NORTHERN POWER DEVELOPMENT L.P.

Submitted to:

Ms. Karlene Fine
Executive Director & Secretary

Industrial Commission of North Dakota
600 East Boulevard Avenue
State Capitol, 10th Floor
Bismarck, ND 58505-0310

Amount Requested: $ 673,250 over 10 months

Submitted by:

Gerald E. Vaninetti, President

Great Northern Power Development L.P.
1658 Cole Boulevard
Bldg. No. 6, Suite 260
Golden, CO 80401

_____
Gerald E. Vaninetti, Principal Investigator

August 1, 2001

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APPENDICIES:

GREAT NORTHERN POWER DEVELOPMENT L.P.
LIGNITE VISION 21 FEASIBILITY PROJECT

ABSTRACT

The State of North Dakota has actively promoted the development of a new lignite-fired power plant in North Dakota via its Lignite Vision 21 Project (LV21). To this end, the Lignite Energy Council has facilitated a series of studies to assess the feasibility of constructing and operating a modern, environmentally-compliant 500 MW lignite-fired, mine-mouth power plant (the "Project") to supply exports of power for base-load demand in adjoining regions. Presuming that all permits and financing can be secured in a timely manner, such a Project could come on-line within 7 years to serve the market (~2008).

The North Dakota Industrial Commission has made available $10 million in matching funds for qualified parties seeking to develop the Project in North Dakota. To date, GRE and MDU/Westmoreland have applied for and been granted matching funds for feasibility, design and construction. The goal of the applicant herein is to significantly expedite the Project and in this regard, applicant makes this application for the feasibility stage only and, upon positive feasibility study results, will make application for the design and construction stages of the project. Applicant feels this feasibility stage can be completed within ten months and plans to significantly expedite the design and construction stages to commission a plant no later than 2008.

The applicant herein, Great Northern Power Development L.P. ("Great Northern Power") is an entity formed for the sole purpose of developing this type of project. It is owned and managed by predominantly the same owners of Great Northern Properties L.P. (GNP) and will work proactively to develop the coal reserves of GNP and develop the project. GNP controls substantial reserves of low-cost, surface-mineable lignite reserves throughout western North Dakota. Although several deposits (Belfield, Crooked Creek, & New Salem) have been identified on GNP lands, the development of its Belfield deposit near Dickinson, North Dakota is the most likely candidate to be developed. The Belfield site was evaluated in LV21's Phase II Transmission Study and recently passed an independent "fatal flaw" air and water assessment (included in Appendix G).

Great Northern Power anticipates partnering with a utility/IPP and a mine operator, serving as "Project Developer" while retaining as much as 20% interest in the project. Potential venture partners include current LV21 applicants - GRE and MDU/Westmoreland and other utilities active in MAPP and WSCC, as well as any of the several qualified operators of existing surface coalmines in North Dakota. The Project Developer will also investigate integrating its lignite-fired project with North Dakota's active wind energy project developers. Additionally, the transmission analyses will include investigating the WSCC / MAPP interconnection to allow for greater power transfers from North Dakota into WSCC.

Great Northern Power's initial studies of power supply/demand and the economics of gas-fired vs. lignite-fired capacity indicates positive feasibility: At $1,000/KW installed plant cost (from LV21-funded studies by Black & Veatch) and 50¢/mmBtu fuel costs (from studies of GNP's Belfield site), such a project (including transmission and interconnect costs) is clearly economical. Great Northern Power anticipates that transmission and environmental issues will be integral in developing the project.

This cost of this feasibility phase is estimated at $1,346,500 of which $673,250 is requested from the State of North Dakota as matching funds. Ultimately, the total cost of the project is expected to approach $700 million, of which $10 million would be supplied by the State of North Dakota as matching funds, which will be requested subsequent to positive results from this project's feasibility analyses. Great Northern Power will work closely with the NDIC/LRC, GRE, and MDU/Westmoreland to finalize the contractors' work scopes to eliminate overlap between studies and, where possible, utilize common contractors.

GREAT NORTHERN POWER - LIGNITE VISION 21 FEASIBILITY PROJECT

PROJECT SUMMARY

Great Northern Power's interest in developing a lignite-fired power plant in North Dakota is primarily a function of the availability of its low-cost, surface-mineable reserves at Belfield, Crooked Creek and New Salem. The development of such a "greenfield" site is expected to provide a substantial boost to the local county economy in North Dakota in terms of jobs, infrastructure, services, and tax base. Were the plant developed as an expansion of an existing plant, the economic benefits would be materially lower as such benefits would be incremental rather than stand-alone.

Studies by our mine consultant, Marston & Marston of St. Louis, indicate that the Belfield reserves offer comparable if not superior mining conditions to all other lignite mining operations in North Dakota (Appendix A, Table 4.1) and that mining costs will be in the range of 40-50¢/mmBtu (depending on mine size), inclusive of all taxes and royalties. The advantages of Great Northern Power's reserves are as follows:

- Great Northern Power's 50¢/mmBtu fuel costs compare favorably with average 73¢/mmBtu fuel costs for existing North Dakota lignite-fired plants
- Great Northern Power's overburden-to-coal ratio of 4:1 compares favorably with other North Dakota lignite mines which range from 5:1 to 9:1

Great Northern Power anticipates providing coal on a cost basis to an adjoining lignite-fired power plant and sharing the proceeds of power sales in lieu of a mining profit in contrast to a conventional "arms-length" coal supply agreement. Therefore, Great Northern Power's assessment of project economics is driven by these fuel costs. It should be noted that Great Northern Power has expended approximately $195,000 to date for studies (Fatal Flaw, Transmission, Mine Planning, Title, & Preliminary Market and Transmission / FERC Policy Analyses). Additionally, Great Northern Power also plans to expend approximately $110,000 over the next two months while awaiting grant approval (drilling, transmission policy, & in-house admin.)

Great Northern Power's independent studies based on 50¢/mmBtu fuel costs, Black & Veatch's cost estimates for a lignite-fired plant, supplemented with industry input

confirms LV21's assessment of the feasibility of a 500 MW lignite-fired power plant for North Dakota in competition with a gas-fired plant (Appendix B). As shown, at base-load capacity factors (75-85%), stable-cost lignite-fired generation at 50¢/mmBtu is clearly more economical than gas-fired generation at volatile gas prices which are expected to range between $3-$4/mmBtu.

The advantages of mine-mouth generation as compared with coal-fired plants located in load centers are listed below:

- 50¢/mmBtu fuel costs can offset substantial transmission cost differentials
- Transmission costs are more economic than coal transportation costs
- Siting and permitting may be simplified
- Local support in terms of jobs and tax base
- Coal inventory and handling simplified and less costly
- Fuel costs not subject to market fluctuations
- Sole supplier and shared project interests

Great Northern Power has familiarity with the different "conventional" coal combustion technologies: pulverized coal and circulating fluidized bed (CFB). Although both technologies offer similar economics and detailed feasibility, engineering, and permitting studies will ultimately dictate the plant design; Great Northern Power is favorably disposed towards CFB technology (see schematic – Appendix B). This is because CFB plants have been successfully permitted and operated for more than a decade in California – home to some of the most stringent air quality limitations in the world. However, CFB technology effectively limits plant sizes to about 250 MW each so a 500 MW project would entail two CFB units (possibly with a shared turbine, as is the case for the Nation's newest lignite coal project which is just coming on-line in Mississippi).

New power plants, regardless of fuel or technology, are commonly sited at the boundary between NERC regions to take advantage of favorable logistics to two power markets. A plant sited in western North Dakota (such as the Belfield site) would be in such a situation, as it is located near the boundary of the MAPP and WSCC regions. Given such potentially favorable logistics, Great Northern Power will continue its investigations that are directed at upgrading the existing WAPA lines currently connecting these two regions in order to serve both power markets.

Great Northern Power will work with the other successful grant applicants to avoid duplication of studies and to minimize cost to the State Industrial Commission. Major

study areas in which this benefit can immediately be realized are the transmission and permitting studies, which Great Northern Power would hope to immediately begin coordination with GRE.

Additionally, Great Northern Power would like to meet with the State Industrial Commission's technical representative as soon as practical to begin the review and approval process for the consultants and their work scopes and schedules. The initiation of this process will assist our strategy to expedite this project on all fronts.

PROJECT DESCRIPTION

Objectives:

In addition to site studies, the feasibility for the development of a 500 MW lignite-fired power plant in North Dakota is highly dependent upon transmission availability and environmental compliance recognizing that previous LV21 studies have largely confirmed market requirements, combustion technology, and project economics. To this end, Great Northern Power will be directing its initial efforts in the following areas:

- Transmission: verifying recently-completed LV21-funded studies with ABB for exporting power to Minneapolis involving a $135-160 million transmission project; potential integration of wind generation as a "green component"; supplemental studies for increasing the power transfer capacity between WSCC and MAPP, and within MAPP, involving WAPA's transmission system, which are likely to include the pursuit of enabling legislation and loan guarantees for privately-funded transmission projects. Notwithstanding FERC Orders 888, 889, and 2000, Great Northern Power will endeavor to accommodate the owners/operators of the existing MAPP transmission grid in order to proceed with the project development.

- Environmental: developing and pursuing strategies (with the help of LV21 project management) with owners of lignite-fired power plants in North Dakota to manage the environmental concerns to accommodate construction of one or more new 500 MW lignite-fired plants in North Dakota. The current air modeling results to be made available by the Department of Health in early 2002 will in most part, dictate these actions.

PROJECT DESCRIPTION (*continued*)

- Site Studies: A series of increasingly detailed data collection, siting, mine, economic, environmental, and permitting studies will be undertaken to verify the feasibility of a mine/plant project at Belfield versus our New Salem or Crooked Creek fields and to proceed with timely permitting and financing.
- Financial Feasibility Studies: These studies will estimate the financial viability of the preferred technology at each candidate site as well as thorough market analyses in a competitive dispatch environment. A choice will be made between the two proposals submitted by Black & Veatch (Appendix C) and Henwood (Appendix G).

See Appendix C for Black & Veatch's scope details on the above studies.

Although proposals for various contractor studies have been obtained (Appendix C & G), the scope of work for these studies will be integrated to eliminate overlaps between contractors and between entities funded by NDIC (i.e. GRE and MDU/Westmoreland). Where appropriate and cost effective, some incremental studies may be commissioned of the contractors selected by GRE and MDU/Westmoreland, rather than the contractors presented herein. To this end, Great Northern Power will work closely with NDIC/LRC to finalize contractor work scopes prior to selecting contractors and awarding the work.

Concomitant with the above, Great Northern Power will simultaneously enter into discussions with potential venture partners for the development of a mine/plant complex. These parties will include utilities active within North Dakota including GRE, MDU, and Basin Electric, as well as other utilities active within MAPP and WSCC. In addition, qualified western surface mine operators will be provided with the opportunity to submit venture proposals for operating the mine and, possibly, participating in the project. These operators will include Falkirk, Coteau, Knife River, BNI Coal, Peabody, Arch, Kennecott, RAG, Vulcan, Western Fuels, Westmoreland, Kiewit, and BHP. Finally, Great Northern Power will also explore opportunities for integrating wind energy into its project to the extent that it would enhance the feasibility of Great Northern Power's lignite project.

Subsequent to ascertaining project feasibility and once the project development team is formed, the project will then move forward with application to the NDIC for the design

and construction of the mine and plant. This is key to project fast-tracking because it allows the conceptual design to begin with the intent of eliminating six months from the project schedule. Great Northern Power will intensely promote the expeditious execution of all permitting, design, and construction to the maximum extent possible utilizing state-of-the-art, fast-track project development management methods and techniques which will include utilizing a critical-path master schedule incorporating all facets of permitting, design, procurement, and construction.

Methodology / Resources / Techniques

The total project is designed in two basic stages to achieve its overall goal of adding a new 500 MW generating unit in North Dakota and its respective transmission upgrade.

The Feasibility Stage, for which this application is submitted, involves studies of generation technologies, siting, environmental impacts, marketing, transmission, and partnering/financing opportunities (Appendix C). The feasibility stage time frame is projected at ten months and will be managed by a Project Team composed of the principal investigator complemented by Great Northern Power management, consultants and technical personnel appropriate to the individual study disciplines. Additionally, consultants will be utilized as necessary for the various studies. The consultants' detailed work scopes will be submitted subsequent to their selection. Great Northern Power will select the consultants for the feasibility stage as soon as practical following grant award from the North Dakota Industrial Commission (NDIC). However, in order to expedite this phase, Great Northern Power is undertaking drilling and fuel analyses studies that will be incorporated into the overall feasibility results.

The Design/Construction/Commissioning (DCC) Stage will be the execution stage - design, construction, and commissioning of the new plant. Although no funds are presently being requested for this stage, the following description gives pertinent information, which completes the project logic. The time frame projected for the DCC

Stage is seven years (additional information will also be provided in the **Timetable** & **Budget** sections of this application). Necessary transmission upgrades will also be accomplished in this execution stage. The Project Team will add the necessary engineering resource (anticipated to be an international power-engineering firm) at the onset of this phase. Additionally, Great Northern Power will begin the formation of a field project management team that will oversee the actual design and construction of the plant. Ultimately, the Project Team will evolve into a startup team composed of start-up and operations experts from within the utility partner and the power-engineering firm. Great Northern Power will issue quarterly progress reports to the NDIC and will provide project management. These reports will summarize the status of project objectives, highlight key findings, and update the project schedule. The project manager will issue a final report to the NDIC at the end of the project.

Expected Results

The State of North Dakota, project participants, the North Dakota Lignite industry, and regional electrical consumers will realize benefits as listed below:

- Generation technology analysis and recommendation
- Analysis to produce most feasible plant site
- Environmental management plan to address impacts
- Financial feasibility analysis
- Transmission system upgrade recommendations
- Analysis of partnering opportunities to increase economic impacts
- Construction of a new 500 MW-class plant that meets or exceeds environmental performance requirements and is competitive
- Transmission system improvements

Impacts

Approximate major economic impacts for the State of North Dakota (source – Lignite Energy Council) are listed below.

1. 1,300 jobs
2. $6,000,000 of increased tax revenues
3. $140,000,000 increase in business volume
4. Lignite mining increase of 3,000,000 tons per year

The environmental impacts as a result of the construction of a large generating unit and of transmission lines will depend on where the Lignite Vision 21 plant is constructed. It is anticipated that an air emission offset strategy will be utilized to ensure air quality standards are maintained. The approach on transmission will be to utilize existing lines and rights-of-way wherever possible and practical.

The ultimate technological impacts of the project will be the increased knowledge of generation technologies and transmission network reliability.

Need

The market for North Dakota lignite reached a plateau several years ago. After strong growth in the decade 1975 to 1985 there has been little growth and the market faces competitive challenges from Powder River Basin subbituminous coal and environmental challenges from increasingly more stringent regulations.

North Dakota's strategic location and abundant lignite resources yield a significant opportunity to sell electrical capacity and energy to markets that show the long-term need for electricity.

This project is designed to answer the long-term electricity needs of this region, increase transmission system reliability, and revitalize the state's lignite industry.

STANDARDS OF SUCCESS

The standards of success for this project are two-fold. In the feasibility stage standards require the studies to thoroughly analyze their assigned disciplines and present a realistic evaluation of options relative to previously stated objectives (Page 6) and expected results (Page 9). The execution stage standards will be the achievement of successfully constructing a plant that can achieve its required efficiency / environmental performance goals and objectives as detailed previously in the abstract and project description sections of this application.

BACKGROUND QUALIFICATIONS

See Appendix D (GNP's company description, experience, and qualifications)

VALUE TO NORTH DAKOTA

This project is of significant value to North Dakota because its success will lead to the largest single economic development project since the last power plant construction in the mid 1980's. As a "greenfield site" it is expected to provide a more substantial boost to the local county economy in North Dakota in terms of jobs, infrastructure, services, and tax base than if the plant developed as an expansion of an existing plant. The economic benefits would be materially lower as such benefits would be incremental rather than stand-alone.

This energy industry growth yields direct and indirect jobs, which, in turn, adds to the tax base and fuels further economic development. Additionally, upgrades to transmission capability and stability contribute to the overall growth of the system and facilitate continued growth of the energy industry and ancillary services in North Dakota to the benefit of existing and new lignite plants in North Dakota.

The current state of the nation's energy picture with impending rolling blackouts in California and the price of natural gas recently hitting an all-time high offer an unprecedented opportunity for the State of North Dakota to participate in the first major energy development project in this region in 15 years. Without the state's participation in the early stages of this project, it will not move forward. This would be a tremendous waste of the state's abundant lignite resources and the potential for economic development in western North Dakota. This project is essential to the continued growth of North Dakota's economy.

PROJECT MANAGEMENT

Great Northern Power's project development team is currently comprised of in-house personnel supplemented with consultants including two key individuals formerly in the employ of Phillips Coal Company's successful mine development activities. In the longer-term, the Project Developer will incorporate supplemental consultants into this team. This team is expected to continue utilizing the input and perspective of the management of the Lignite Energy Council and LV21. The key members of the current project development team have extensive experience in energy-related project development and include:

- Gerald E. Vaninetti – Project Manager
- Rich Voss – Project Feasibility Manager
- Dwight Dunlap & Kevin Wall – Financing and Pro Forma analyses
- Chuck Kerr – Land and Public Relations
- Benton Kelly & Mike Arne – Mine Development (consultants)
- Black & Veatch – Project Feasibility (consultant) – Principal Investigator
- ABB – Transmission (consultant)
- Vinson & Elkins LLC – Transmission Policy (consultant)
- Bison Engineering – Air & Water (consultant)
- Marston & Marston – Mine Engineering (consultant)
- RDI or Henwood – Power Market (consultant)

Great Northern Properties will manage this project with Gerald E. Vaninetti as the project manager supported by Rich Voss, utilizing Black & Veatch as prime consultant to spearhead the studies (see organizational chart in Appendix C). Great Northern Power will also utilize support from appropriate technical, administrative and consulting experts relative to current project activities as noted above. Specific detailed organizational

charts will be developed upon grant award and submitted to the NDIC with the first quarterly report. Resumes of anticipated key personnel are included in Appendix E.

TIMETABLE

The Project Developer would take the lead in developing a mine-mouth, lignite-fired power plant complex of a 500 MW nominal capacity, although a larger project may be pursued, provided that transmission and environmental concerns are solved. This seven-year project would be developed in the following phases:

- Phase I – Feasibility & Venture Formation (10 Months): Project feasibility studies will be largely focused on siting, transmission, and environmental issues directed at assessing permitability and ascertaining project feasibility for the construction and operation of a mine/power plant complex and related transmission (see detailed schedule – Appendix C). Venture formation activities to form a "project team" will consist of interviewing, soliciting proposals, and negotiating agreements with potential venture partners including utilities, IPP's, and mine operators wherein Great Northern Power would retain as much as a 20% interest in the project.

- Phase II – Permitting & Engineering (18 Months): Subsequent to feasibility verification, the Project Developer will submit a series of applications for environmental, construction, and operating permits with local, state, and federal agencies that will encompass public input, concessions, and permit application modifications. Engineering activities will be provided by experienced and qualified entities and will encompass mine, plant, and transmission design, equipment selection, and cost estimating for final feasibility, financing, and permitting.

- Phase III – Financing (6 Months): The Project Developer will arrange project financing from financial institutions and entities actively involved in the financing of energy-related projects, which may include organizations that specialize in funding energy cooperatives. It is expected that the Project Developer will contribute significant equity to the project.

- Phase IV – Construction (40 Months): Construction of the mine, power plant, and transmission facilities is likely to approach 40 months and will be managed by experienced and qualified construction management/ engineering firms. An additional 3-6 months will be required for start-up activities.

The previous phases will be expedited and overlapped where feasible to fast-track and improve on the projected seven-year development. Upon plant commissioning, the mine/plant complex is anticipated to have at least a 40-year operating life.

MASTER SCHEDULE

ACTIVITY	DATE
Submit grant application	August 2001
LRC review application	August 2001
Peer review	September 2001
LRC recommendation	September 2001
Grant award notification	October 2001
Contract negotiations complete	October 2001
Project kickoff	October 2001
Technical studies complete	August 2002
Project review	August 2002
Decision to Construct	**September 2002**
Plant & Transmission Engineering begins	September 2002
Permitting begins	September 2002
Construction permits complete	July 2004
Construction begins	July 2004
Construction & startup complete	June 2008
Commercial operation	July 2008

BUDGET

This request is for $673,250 from the NDIC to support a program with a total project cost of $1,346,500. Details of the budget are as follows:

Feasibility Studies:

1. Generation / clean coal / fuel	$ 130,000
2. Siting	$ 100,000
3. Environmental	$ 85,000
4. Financial feasibility	$ 150,000
5. Transmission	$ 135,000
6. Partnering / Financing	$ 200,000
Consultants – Proj.Dev. / Mining	$ 280,000
Project Management & Administration	$ 266,500
TOTAL	$1,346,500

Feasibility Stage - Project Cash Flow Summary

MONTH	GREAT NORTHERN POWER IN-KIND COSTS*	GREAT NORTHERN POWER CONSULTANT COSTS	TOTAL PROJECT COSTS	STATE FUNDING @ 50% of Total Costs
Nov.2001	$ 26,650	$ 112,500	$139,150	$ 69,575
Dec.2001	$ 26,650	$ 142,500	$169,150	$ 84,575
Jan.2002	$ 26,650	$ 99,500	$126,150	$ 63,075
Feb.2002	$ 26,650	$ 121,500	$148,150	$ 74,075
Mar.2002	$ 26,650	$ 154,500	$181,150	$ 90,575
Apr.2002	$ 26,650	$ 99,500	$126,150	$ 63,075
May.2002	$ 26,650	$ 87,500	$114,150	$ 57,075
Jun.2002	$ 26,650	$ 87,500	$114,150	$ 57,075
Jul.2002	$ 26,650	$ 87,500	$114,150	$ 57,075
Aug.2002	$ 26,650	$ 87,500	$114,150	$ 57,075
TOTAL	$ 266,500	$ 1,080,000	$ 1,346,500	$ 673,250

* The GREAT NORTHERN POWER COSTS is a combination of in-house management, overheads, benefits, and direct expenses. The drilling, studies, & consultant costs comprise the balance of Total Project Costs. See Appendix F for details.

The NDIC funds are necessary for meeting the total budget amount in order to fulfill the objectives of the project. The requested NDIC funding will commit the state as a partner through the feasibility stage. Without the NDIC funding, there would not be enough funding to attain the Phase 1 project objectives and the project would not go forward.

As stated previously, this grant application is for the feasibility studies as detailed on page 16. With positive results from this feasibility phase, Great Northern Power will submit a grant application for the follow on stages as noted below. The total budget for the development of the Belfield Site is expected to approach $700 million for one 500 MW plant, or $1.2 billion for two 500 MW plants. The range of major capital cost components and the schedule of expenditures is presented below:

	Budget Estimate	Expenditure Schedule
Feasibility	$1 - $2 Million	2001-2002
Permitting & Engineering	$5 - $8 Million	2002-2004
Lignite Mine	$40 - $50 Million	2005-2008
Transmission	$135 - $160 Million	2004-2008
Power Plant	$525 - $1,000 Million	2004-2008
Grand Total	$706 - $1,220 Million	

The above are early stage estimates for project costs in today's dollars. Transmission costs are included.

MATCHING FUNDS

Funding for this project (page 16) will be provided by Great Northern Power with a requested 50% match from the North Dakota Industrial Commission. The letter of commitment is included as part of the submittal letter.

TAX LIABILITY (Executed version will be delivered in hard copies)

I, Gerald E. Vaninetti, certify that Great Northern Power L.P. has no outstanding tax liabilities to the State of North Dakota.

Signed: _____

Date: _____

CONFIDENTIAL INFORMATION

Pursuant to Section 54-17.5-06 of the NDCC, Great Northern Power L.P. requests that Appendix G of our Lignite Vision 21 Feasibility Project Grant Application be treated as confidential information. This information is proprietary in nature and includes our generation, transmission, environmental and business development strategies. An additional concern is sharing our detailed scope of work and our consultants' proprietary proposals (and cost estimates) with the public. If made public, this information could place Great Northern Power L.P. at a competitive disadvantage and jeopardize project economics as these strategies are implemented.

LIGNITE MINING ECONOMICS STUDY
FOR GREAT NORTHERN PROPERTIES L.P.

TABLE 4.1

MINE CHARACTERISTICS SUMMARY

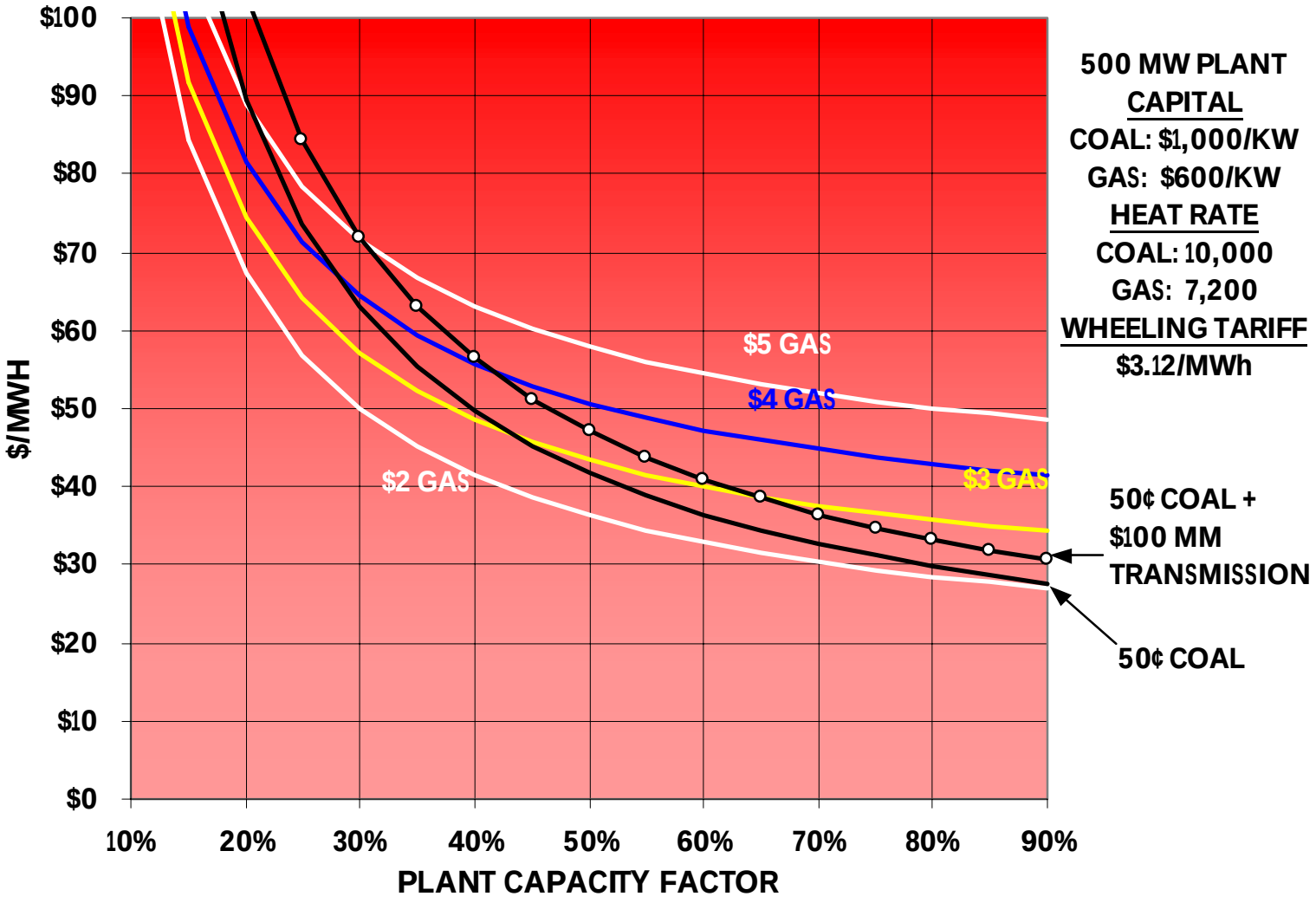
July 2000

MINE	MINE OPERATOR	LIGNITE PRODUCTION (million tons) 1980	1990	1999	LIGNITE SEAMS MINED & AVG. THICKNESS (feet)	STRIPPING DEPTH RANGE (feet)	STRIPPING RATIO (bcy/ton)	STRIPPING EQUIPMENT	LIGNITE MINING & HAULAGE EQUIPMENT
ACTIVE MINES									
Beulah	Knife River Corp. *(subsidiary of MDU Resources Group, Inc.)*	1.8	2.2	2.9	Schoolhouse (8 ft) Beulah-Zap (12 ft) [80%-90% Recovery]	90' avg.	8:1	B.E. 1570-W Dragline - 75 cu. yd. B.E. 480-W Dragline - 17 cu. yd. Caterpillar 5130 Hyd. Excav. End Dump Haul Trucks - 100t Caterpillar 657E Scrapers - 30 cu. yd.	B.E. 195-B Shovel - 16 cu. yd. (2) Cat. 992C Loaders - 18 cu. yd. Euclid CH-120 BD Coal Haulers - 120t
Center	BNI Coal, Ltd. *(subsidiary of Minnesota Power)*	3.6	4.1	4.6	Kinneman Creek (4 ft) Hagel (11 ft)	25' - 125' (75' avg.)	5:1	Page 757 Dragline - 70 cu. yd. Page 736 Dragline - 21 cu. yd. (6) Cat. 657E Scrapers - 44 cu. yd.	P&H 1900 Shovel - 18 cu. yd. (2) Caterpillar 992G Loaders - 30 cu. yd. LeTourneau L800 Loader - 22 cu. yd. (6) Kress CH-180 BD Trucks - 180t
Falkirk	Falkirk Mining Company *(subsidiary of North American Coal Corp.)*	3.0	6.8	7.2	Upper Hagel (9.2 ft) * Lower Hagel (1.5 ft) * 'B' Split (2.7 ft)	20' - 160' (100' avg.)	9:1	(2) Marion 8750 Draglines - 105 cu. yd. Page 752 Dragline - 45 cu. Yd (6) Scrapers - 32 cu. yd.	Loading Shovel - 18 cu. yd. (2) Wheel Loaders - 20 cu. yd. Easi-Miner (6) Kress CH-160 BD Truck - 160t
Freedom	Coteau Properties Company *(subsidiary of North American Coal Corp.)*	----	10.9	15.5	Beulah-Zap (17 ft)	30' - 150'	6:1	(2) B.E. 2570-W Draglines - 120 cu. yd. P&H 2800XPA Shovel - 46 cu. yd. P&H 2250 Hyd. Excavator (9) Cat. 789B Haul Trucks - 170t	(2) Marion 191-M Shovels - 27 cu. yd. LeTourneau L-1350 Loader - 45 cu. yd. (2) LeTourneau L-1100s - 37 cu. yd. (3) Cat. 789 BD Coal Trucks - 290t (3) Kress CH-300 BD Trucks - 280t (2) Dart BD Coal Haulers - 170t Overland Conveyor - 7 mile
Savage	Knife River Corp. *(subsidiary of MDU Resources Group, Inc.)*	0.2	0.2	0.3	Pust (19 ft)	55' - 100'	5:1	B.E. 500-W Dragline - 13 cu. yd. Caterpillar 657 Scraper	Caterpillar 992 Loader (2) Euclid Haul Trucks - 120t

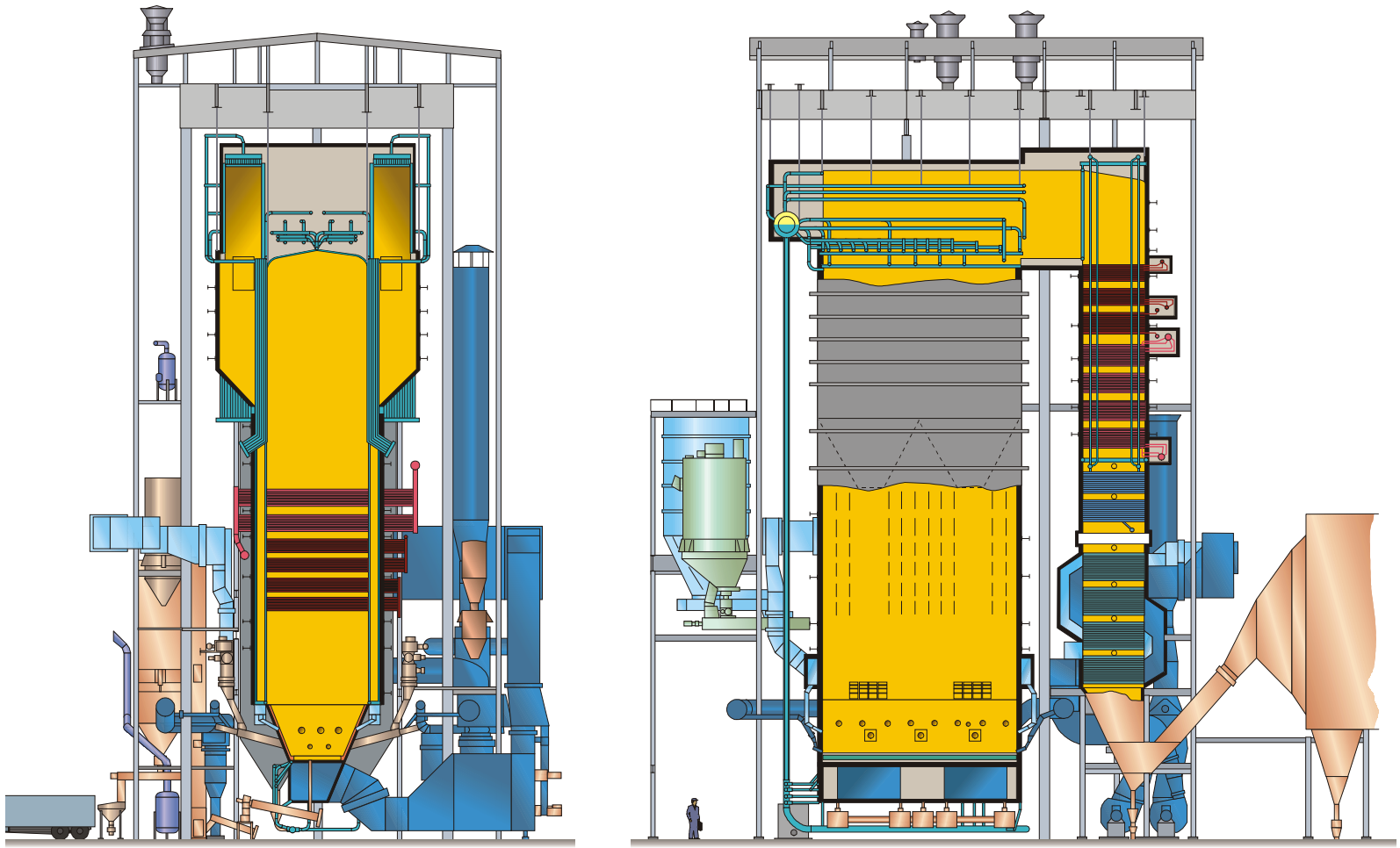
Notes: * Splits Combine To Form A Single Seam Throughout Most Of The Permit Area
** Recoverable Reserves Estimated at a 85% Recovery factor
*** Recoverable Reserves Estimated at a 90% Recovery factor
BD = Bottom Dump Configuration

APPENDIX B

FUEL COMPARISON ANALYSIS



CFB BOILER
2 x 370 MWth, 134/122 kg/s, 161/35 bar 542/542°C



NATIONAL POWER SUPPLY CO., LTD.
THA TOOM, THAILAND

BLACK & VEATCH

8400 Ward Parkway
P.O. Box 8405
Kansas City, Missouri 64114

Tel: (913) 458-2000

July 30, 2001

Mr. Gerald Vaninetti, President
Great Northern Properties
Golden, CO

Subject: **Proposal to Provide Project Development Support to Great Northern Properties for LV-21 Initiative**

Dear Mr. Vaninetti:

Attached please find our proposal to provide the subject support for your Lignite Vision 21 (LV-21) activities.

We have attempted to be fully responsive to your requirements. If there are any questions or modifications that you require, please contact us and we will respond as soon as possible.

It is understood that, after your acceptance of this proposal, both parties will use reasonable diligence to agree upon a mutually acceptable definitive written contract with respect to the work described in this proposal. Your acceptance of this proposal or use of any Black & Veatch Corporation services shall constitute your agreement that, except as set forth in the signed definitive written contract, and to the maximum extent allowed by law NO WARRANTIES OR GUARANTEES, EXPRESS OR IMPLIED, SHALL APPLY WITH RESPECT TO THE WORK, AND BLACK & VEATCH CORPORATION AND ITS OFFICERS, EMPLOYEES AND AGENTS SHALL NOT BE LIABLE FOR COSTS OR DAMAGES OF ANY NATURE including, but not limited to, loss of profits or revenue, loss of use, loss of opportunity, loss of goodwill, cost of substitute facilities, goods or services, cost of capital, cost of replacement power, governmental and regulatory sanctions, and claims of customers for such damages, or special, indirect, incidental, punitive, exemplary or consequential damages, whether such costs or damages are alleged to have arisen in contract, tort (including negligence) or other theory of law.

We re prepared to commence work immediately upon development and execution of a mutually acceptable written contract.

We look forward to working with you on this important project.

Very truly yours,

J. Alex Silver
Black & Veatch Corporation

Cc R. Voss-GNP
R. Slettehaugh-B&V
R. Jacobson-B&V
H. Russell-B&V

GREAT NORTHERN PROPERTIES

LV-21 Proposed Scope of Work

DRAFT
Project Number 001826.8040

July 2001

BLACK & VEATCH

11401 Lamar, Overland Park, Kansas, 66211, USA (913) 458-2000

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Overview

The Lignite Energy Council (LEC) is conducting the Lignite Vision 21 (LV-21) initiative to promote North Dakota lignite as a power project fuel, and to facilitate and support activities to enable one or more such projects to be able to commence commercial operation by the year 2008.

LEC has had fatal flaw studies and preliminary analyses performed related to the issues of transmission capacity, environmental, technology, potential site identification, potential off-takers, and fuel supply. While this preliminary work has indicated no fatal flaws, additional studies are required to address key development issues and economic viability of such projects. The next round of studies will therefore "advance the token" to the point where it can be concluded that the projects are technically sound, and that expected overall financial returns of the project will be competitive with other options of comparable risk.

In this proposal, Black & Veatch will describe the proposed Project Development Studies to Great Northern properties (GNP) to be part of their LV-21 funding application. These consist of a number of studies recommended to be performed in an integrated manner, which will enable an objective conclusion about the overall project technical feasibility and financial viability. Additional project development assistance may also be provided by Black & Veatch as described herein.

The Project Development Studies will be an integration of two major studies – a Site Analysis Study and a Market Assessment Study – plus other analyses required to develop important technical and financial conclusions.

It is understood that, after your acceptance of this proposal, both parties will use reasonable diligence, to agree upon a mutually acceptable definitive written contract with respect to the work described in this proposal. Your acceptance of this proposal or use of any portion of Black & Veatch Corporation services shall constitute your agreement that, except as set forth in the signed definitive written contract, and to the maximum extent allowed by law NO WARRANTIES OR GUARANTEES, EXPRESS OR IMPLIED, SHALL APPLY WITH RESPECT TO THE WORK, AND BLACK & VEATCH CORPORATION AND ITS OFFICERS, EMPLOYEES AND AGENTS SHALL NOT BE LIABLE FOR COSTS OR DAMAGES OF ANY NATURE including, but not limited to, loss of profits or revenue, loss of use, loss of opportunity, loss of goodwill, cost of substitute facilities, goods or services, cost of capital, cost of replacement power, governmental and regulatory sanctions, and claims of customers for such damages, or special, indirect, incidental, punitive, exemplary or consequential damages, whether such

costs or damages are alleged to have arisen in contract, tort (including negligence) or other theory of law.

Lignite Vision 21 Project Development Studies

It is proposed to present the results of the studies in a two (2) volume format:

Volume A: Executive Summary

Volume B: Project Development Studies

1. Financial Pro Forma Analysis
2. Site Analysis
3. Market Assessment
4. Pulverized Coal and Circulating Fluidized Bed Cost and Performance
5. Integrated Gasification Combined Cycle Cost and Performance
6. Environmental Planning and Permitting Assessment
7. Wind Energy Advisory Services

Volume A, the Executive Summary, will serve as a Project Information Memorandum that can be quickly reviewed, while Volume B provides additional detail. Under the proposed approach, the studies will be integrated into the project financial pro forma analysis. This financial analysis will estimate the financial viability and rate of return of the preferred technology for each of the technically viable candidate sites. Thus, it will explicitly consider the site-specific costs associated with construction and operation at each site and the forecasted revenues to be realized by the plant.

In addition to the tasks specifically related to the Project Development Studies, Black & Veatch can provide project development assistance in the form of strategic advising support on an on-going and as-needed basis. These efforts will be initiated based on specific requests by GNP. Examples of such support may include assistance in presentations, integrating results of studies performed by others into the project pro forma, strategic assessment of the project, strategic planning and coordination of development activities, and reviewing studies performed by outside parties that affect the project.

Personnel

Black & Veatch is proposing to staff the GNP Project Development Studies with many of its most experienced personnel, and will also have experienced project development advisory staff available to the project. The organization chart, Figure 1, identifies the individuals proposed for this work.

Schedule

The projected schedule to complete this effort is shown in Figure 2.

Cost

The projected cost to complete this effort is shown below.

Studies:	Indicative Price
1. Pro Forma	$30,000
2. Site Ranking	$75,000
3. Market Assessment	$125,000
4. PC/CFB Cost & Performance	$101,000
4(a). Refined Estimate Option	$50,000
5. IGCC Cost & Performance	$50,000
6. Environmental	$125,000
1. Regulatory Issues Review	$12,000
7. Wind	$25,000
Project Management and Reports	$35,000
TOTAL (with options)	$628,000

Description of Study Elements

Following the organization chart we have provided descriptions of the scope of each of the seven (7) recommended study elements. These studies address not only siting, financial, and environmental concerns, but also provide assessment of technical options, in order to respond to questions that may arise concerning alternatives to proposed arrangements.

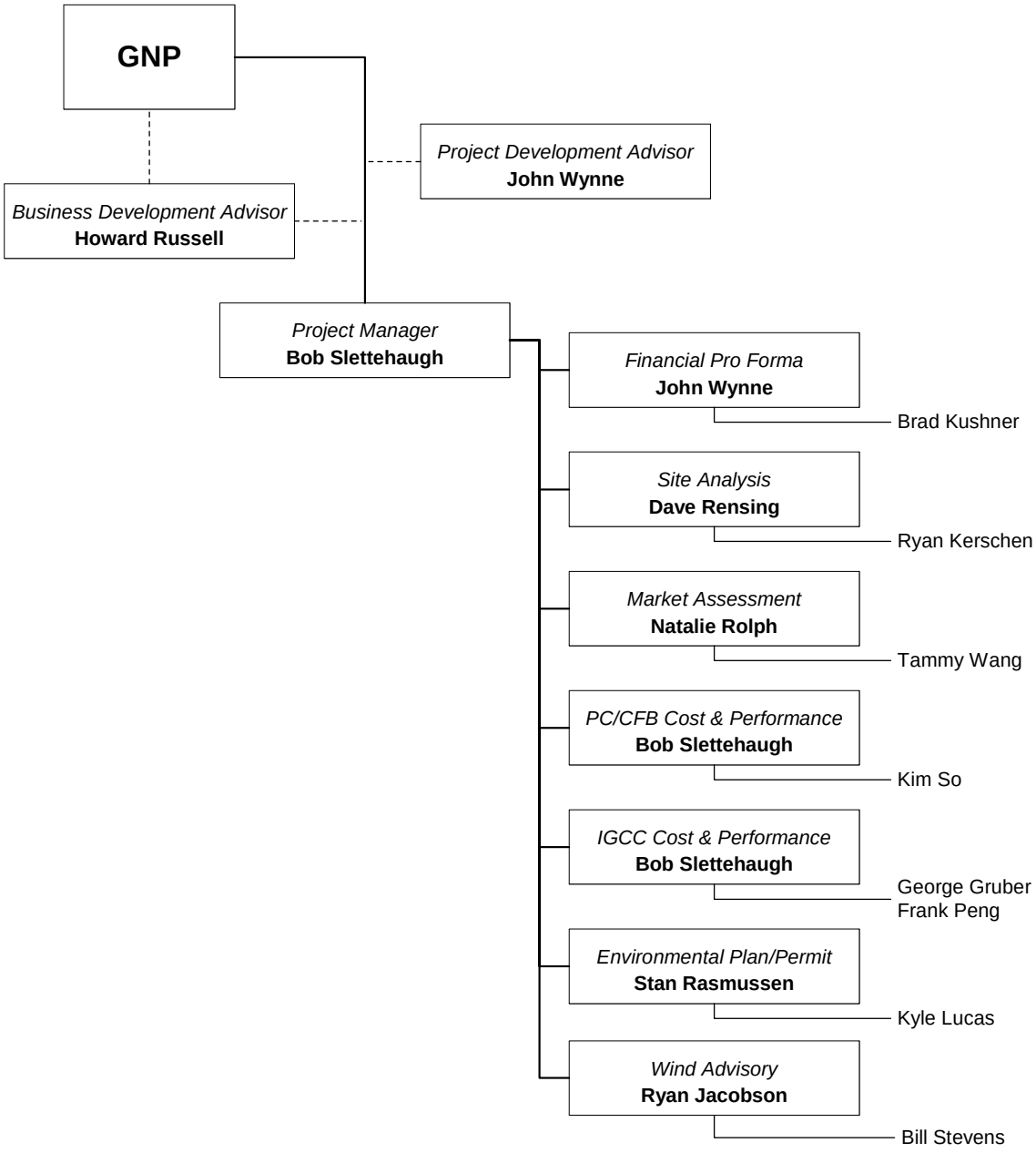


Figure 1 Proposed Organization Chart.

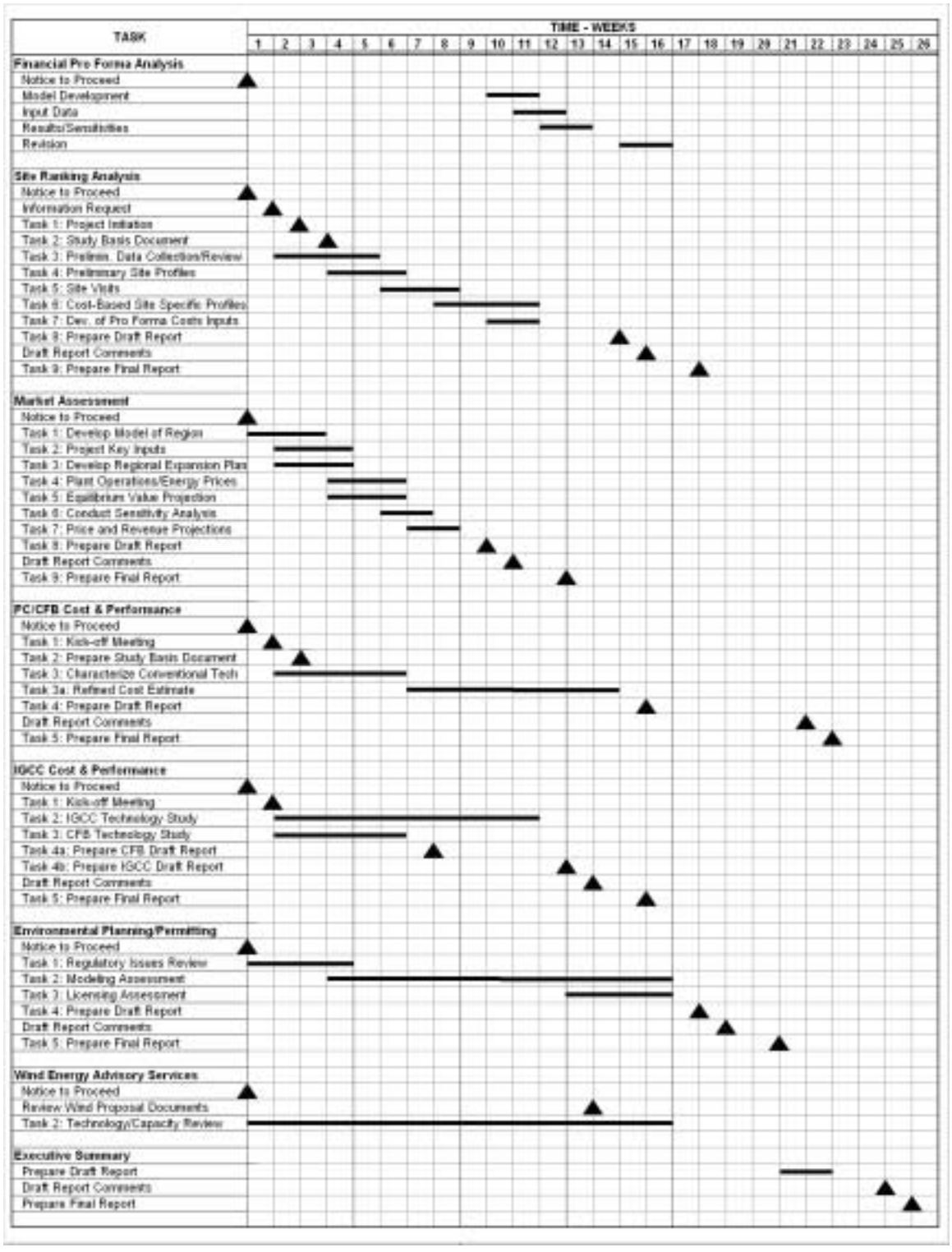


Figure 2 Study Schedule.

1.0 Financial Pro Forma Analysis

The ultimate decision of an investor to participate in the ownership of the project will depend on the expected financial return of the project, considering the projects risks and uncertainties. In this respect, all of the previously described Project Development Studies are important in that they will impact the financial performance and risk profile of the project. The information in these studies must therefore be brought together and consolidated in a project pro forma analysis, which is described below.

Table 1-1 is a list of inputs which are required for the Black & Veatch pro forma model. Many of these inputs will be developed through other study tasks including the plant capital costs, fuel costs, and plant operating costs and performance which will be obtained from the Site Selection Study; and project revenues which will be based on the Market Assessment Study. Financing assumptions will be based on current market conditions and will reflect the project risk. Project risk factors consider whether some or all of the capacity is sold under a power purchase agreement, and other risk factors which influence the borrowing costs for the project, loan term, loan fees, and the debt to equity mix.

Black & Veatch will measure the financial performance of the project through the construction of a discounted cash flow model. A separate pro forma will be developed for each of the technically viable project sites. Fundamentally, the pro forma model calculates the project revenues and costs for each year of operation, then compares the yearly after tax cash flows to the project equity investment on a present value basis to determine the return on the investment. Typically, the key financial results of the pro forma are the project net present value (NPV), the internal rate of return (IRR), and the minimum debt service coverage ratio. A typical pro forma model is illustrated in Tables 1-2 and 1-3.

Table 1-2 is a Summary Table which indicates the major inputs and financial results for a hypothetical 500 MW combined cycle plant. In the center column of the Summary Table, the project revenue and annual cost input assumptions are listed along with the escalation rate assigned to each component. The pro forma is flexible enough to allow for a number of different revenue and cost items. At the bottom of the column, the total capital cost is listed, broken down according to direct plant costs, indirect costs, interest during construction, and other costs. The total capital cost of the plant is the amount which is term-financed, and the financing characteristics in this hypothetical case are seen at the top of the third column in the Summary Sheet. In this example, an 80/20 debt to equity mix is assumed and the debt cost is assumed to be 8.5 percent over the 12 year term. As with all pro forma inputs, the financing assumptions can be changed very

easily to perform numerous sensitivities. Sensitivities are typically performed for capital costs, financing costs, fuel costs, and capacity factor. Should the sensitivity analyses indicate the project falls below acceptable levels of financial performance in any sensitivity, it is an indication that additional investigation is warranted to determine the likelihood that the assumed input value will be realized during construction or operation.

Based on the pro forma inputs and assumptions, the year-by-year project cash flows are calculated for the duration of the evaluation. This is shown in Table 1-3 where project revenues are calculated, then the project operating expenses are subtracted from the cash flows each year. The resulting cash available for financing expenses is then carried to the next print out and debt costs, depreciation and taxes are subtracted. The resulting after-tax cash flow for each year is then discounted back to the start of commercial operation in the pro forma and compared to the value of equity investment. From this comparison, the project NPV, the project IRR, and the present value breakeven even date are calculated. These financial measures are seen in the first column of Table 1-2 where it is shown that the hypothetical plant achieves an IRR of 12 percent and has a zero NPV, indicating that the project just earns the required return on investment. The Major Results also report a number of debt service coverage measures.

One of the features of the Black & Veatch pro forma is that it can easily solve for an input variable such that the project IRR is earned. For example, if the required IRR is not earned under the base assumptions, the model can solve for the fuel price needed to produce the target IRR. Virtually any input can also be solved for in the Black & Veatch pro forma model.

The pro forma analysis will provide the results for each of the seven sites found to be technically viable through the other project studies. In addition to a discussion of the inputs for each pro forma, summary tables will be included and an explanation provided which will clearly state the preferred location based on the projected financial returns. The text will also discuss the factors driving the site rankings and the overall project financial returns.

The pro forma analysis will also present the results of a number of sensitivity analyses, which will determine the impact of alternative, but realistic, values for key project inputs subject to uncertainty. Typically, sensitivities are performed for capital costs, fuel costs, financing assumptions, and operating revenue assumptions. Where reasonable sensitivities could reduce the project returns below acceptable levels or result in an alternative site ranking, additional analyses are warranted during the study phase to determine the likelihood of alternative input values.

Another feature of the Black & Veatch pro forma is that it can be easily adjusted as the project progresses and new, more detailed cost and revenue categories are

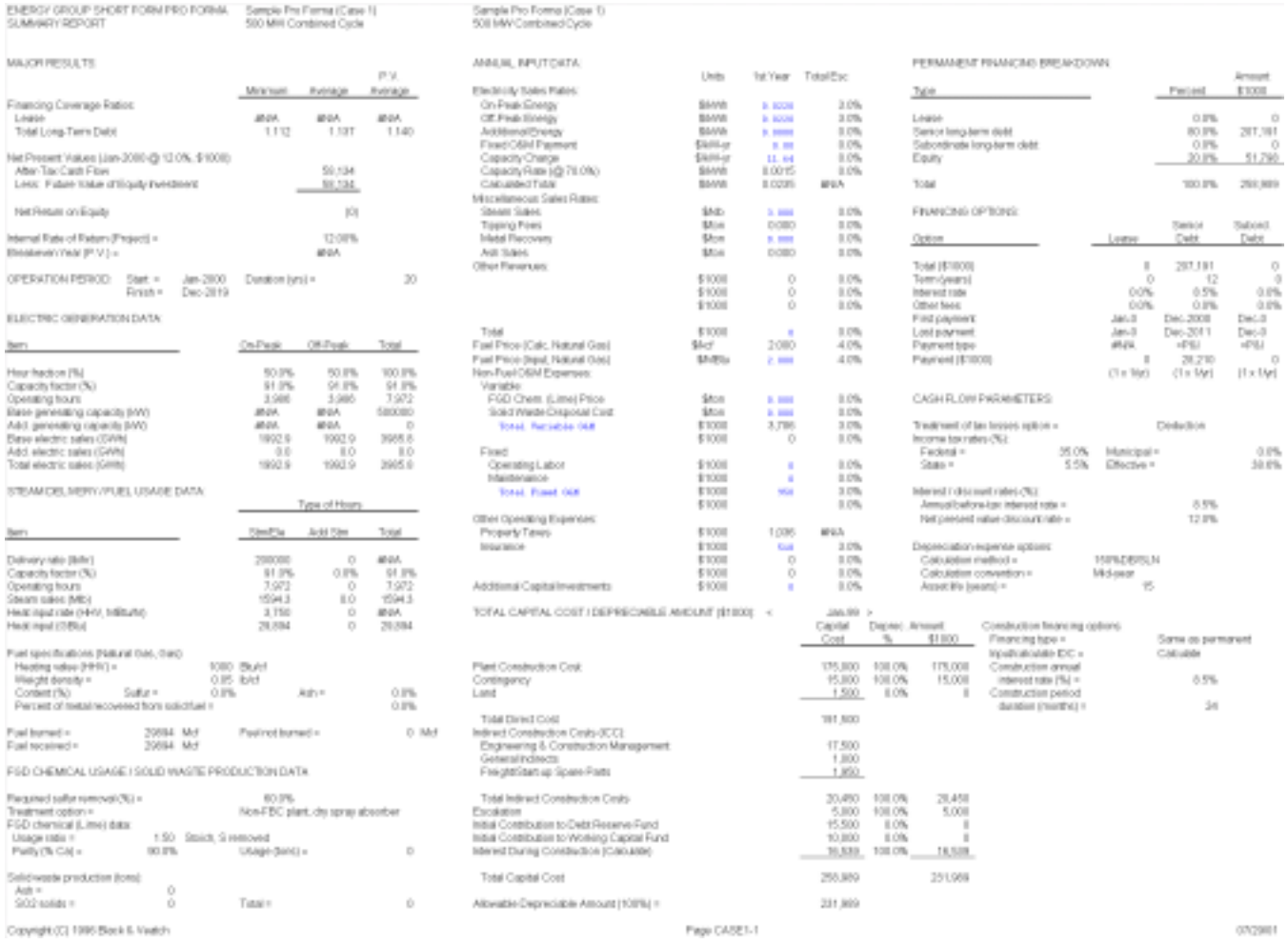
appropriate to add. In this manner, the model is flexible enough to screen a number of candidate sites and configurations in the study, but yet can be expanded upon and used to support eventual project financing.

Table 1-1 Pro Forma Inputs

ENERGY GROUP SHORT FORM PRO FORMA
DETAILED ANNUAL INPUT DATA REPORT

	Units	1st Year	Total Escal.
Electricity Sales Rates:			
On-Peak Energy	$/kWh	0.0220	3.0%
Off-Peak Energy	$/kWh	0.0220	3.0%
Additional Energy	$/kWh	0.0000	0.0%
Fixed O&M Payment	$/kW-yr	0.00	0.0%
Capacity Charge	$/kW-yr	11.64	0.0%
Capacity Rate (@ 70.0%)	$/kWh	0.0015	0.0%
Calculated Total	$/kWh	0.0235	0.0%
Miscellaneous Sales Rates:			
Steam Sales	$/klb	3.000	0.0%
Tipping Fees	$/ton	0.000	0.0%
Metal Recovery	$/ton	0.000	0.0%
Ash Sales	$/ton	0.000	0.0%
Other Revenues:			
	$1000	0	0.0%
	$1000	0	0.0%
	$1000	0	0.0%
Total	$1000	0	0.0%
Fuel Price (Calc, Natural Gas)	$/kcf	2.000	4.0%
Fuel Price (Input, Natural Gas)	$/MBtu	2.000	4.0%
Non-Fuel O&M Expenses:			
Variable:			
FGD Chem. (Lime) Price	$/ton	0.000	0.0%
Solid Waste Disposal Cost	$/ton	0.000	0.0%
Total Variable O&M	$1000	3,786	3.0%
	$1000	0	0.0%
Fixed:			
Operating Labor	$1000	0	0.0%
Maintenance	$1000	0	0.0%
Total Fixed O&M	$1000	950	3.0%
	$1000		0.0%
Other Operating Expenses:			
Property Taxes	$1000	1,036	3.0%
Insurance	$1000	518	3.0%
	$1000	0	0.0%
	$1000	0	0.0%
Additional Capital Investments	$1000	0	0.0%
Depreciation Expense	%		

Table 1-2 Pro Forma Summary Table



ENERGY GROUP SHORT FORM PRO FORMA
SUMMARY REPORT

Sample Pro Forma (Case 1)
500 MW Combined Cycle

MAJOR RESULTS

	Minimum	Average	P.V. Average
Financing Coverage Ratios:			
Lease	#N/A	#N/A	#N/A
Total Long-Term Debt	1.112	1.197	1.140
Net Present Values (Jan-2000 @ 12.0%, $1000):			
After-Tax Cash Flow		59,134	
Less: Future Value of Equity Investment		59,134	
Net Return on Equity		[0]	
Internal Rate of Return (Project) =		12.08%	
Breakeven Year (P.V.) =		#N/A	

OPERATION PERIOD: Start = Jan-2000 Duration (yrs) = 20
Finish = Dec-2019

ELECTRIC GENERATION DATA

Item	On-Peak	Off-Peak	Total
Hour fraction (%)	50.0%	50.0%	100.0%
Capacity factor (%)	91.0%	91.0%	91.0%
Operating hours	3,986	3,986	7,972
Base generating capacity (kW)	#N/A	#N/A	500000
Add generating capacity (kW)	#N/A	#N/A	0
Base electric sales (GWh)	1992.9	1992.9	3985.8
Add electric sales (GWh)	0.0	0.0	0.0
Total electric sales (GWh)	1992.9	1992.9	3985.8

STEAM DELIVERY/FUEL USAGE DATA

	Type of Hours		
Item	Fired/Ba	Add Fire	Total
Delivery rate (lb/hr)	288000	0	#N/A
Capacity factor (%)	91.0%	0.0%	91.0%
Operating hours	7,972	0	7,972
Steam sales (MLb)	1594.3	0.0	1594.3
Heat input rate (HHV, MBtu/lb)	3.750	0	#N/A
Heat input (DBtu)	29,594	0	29,594

Fuel specifications (Natural Gas, Gas):
Heating value (HHV) = 1000 Btu/cf
Weight density = 0.05 lb/cf
Content (%) Sulfur = 0.0% Ash = 0.0%
Percent of total recovered from solid fuel = 0.0%

Fuel burned = 29594 Mcf Fuel fired burned = 0 Mcf
Fuel received = 29594 Mcf

FGD CHEMICAL USAGE / SOLID WASTE PRODUCTION DATA

Required sulfur removal (%) = 90.0%
Treatment option = Non-FBC plant, dry spray absorber
FGD chemical (Lime) data:
Usage rate = 1.50 Stoich. S removed
Purity (% Ca) = 90.0% Usage (ton) = 0

Solid waste production (tons):
Ash = 0
SO2 solids = 0 Total = 0

Sample Pro Forma (Case 1)
500 MW Combined Cycle

ANNUAL INPUT DATA

	Units	1st Year	Total/Esc
Electricity Sales Rates:			
On-Peak Energy	$/MWh	x.xxxx	3.0%
Off-Peak Energy	$/MWh	x.xxxx	3.0%
Additional Energy	$/MWh	x.xxxx	3.0%
Fixed O&M Payment	$/kW-yr	x.xx	3.0%
Capacity Charge	$/kW-yr	11.44	3.0%
Capacity Rate (@ 78.0%)	$/MWh	0.0015	3.0%
Calculated Total	$/MWh	0.0235	#N/A
Miscellaneous Sales Rates:			
Steam Sales	$/Mlb	x.xxx	3.0%
Tipping Fees	$/ton	0.000	3.0%
Metal Recovery	$/ton	x.xxx	3.0%
Ash Sales	$/ton	0.000	3.0%
Other Revenues:			
	$1000	0	3.0%
	$1000	0	3.0%
	$1000	0	3.0%
Total	$1000	0	3.0%
Fuel Price (Calc, Natural Gas)	$/kcf	2.080	4.0%
Fuel Price (Input, Natural Gas)	$/MBtu	2.000	4.0%
Non-Fuel O&M Expenses:			
Variable:			
FGD Chem. (Lime) Price	$/ton	x.xxx	3.0%
Solid Waste Disposal Cost	$/ton	x.xxx	3.0%
Total, Variable O&M	$1000	3,786	3.0%
	$1000	0	3.0%
Fixed:			
Operating Labor	$1000	x	3.0%
Maintenance	$1000	x	3.0%
Total, Fixed O&M	$1000	xxx	3.0%
	$1000		3.0%
Other Operating Expenses:			
Property Taxes	$1000	1,095	#N/A
Insurance	$1000	xxx	3.0%
	$1000	0	3.0%
	$1000	0	3.0%
Additional Capital Investments	$1000	x	3.0%

PERMANENT FINANCING BREAKDOWN

Type	Percent	Amount $1000
Lease	0.0%	0
Senior long-term debt	80.0%	287,191
Subordinate long-term debt	0.0%	0
Equity	20.0%	51,790
Total	100.0%	358,980

FINANCING OPTIONS:

Option	Lease	Senior Debt	Subord Debt
Total ($1000)	0	287,191	0
Term (years)	0	12	0
Interest rate	0.0%	0.5%	0.0%
Other fees	0.0%	0.0%	0.0%
First payment	Jan-0	Dec-2000	Dec-0
Last payment	Jan-0	Dec-2011	Dec-0
Payment type	#N/A	=P&I	=P&I
Payment ($1000)	0	28,230	0
	(1 = Yr)	(1 = Yr)	(1 = Yr)

CASH FLOW PARAMETERS:

Treatment of tax losses option = Deduction
Income tax rates (%):
Federal = 35.0% Municipal = 0.0%
State = 5.5% Effective = 38.6%

Interest / discount rates (%):
Annual before-tax interest rate = 8.5%
Net present value discount rate = 12.0%

Depreciation expense options:
Calculation method = 150%DB/SL
Calculation convention = Mid-year
Asset life (years) = 15

TOTAL CAPITAL COST / DEPRECIABLE AMOUNT ($1,000) < Jan-00 >

	Capital Cost	Depr. %	Amount $1,000
Plant Construction Cost	175,000	100.0%	175,000
Contingency	15,000	100.0%	15,000
Land	1,500	0.0%	0
Total Direct Cost	191,500		
Indirect Construction Costs (ICC):			
Engineering & Construction Management	17,500		
General Indirects	1,000		
Freight/Start-up/ Spare Parts	1,950		
Total Indirect Construction Costs	20,450	100.0%	20,450
Escalation	5,000	100.0%	5,000
Initial Contribution to Debt Reserve Fund	15,500	0.0%	0
Initial Contribution to Working Capital Fund	10,000	0.0%	0
Interest During Construction (Calculated)	16,539	100.0%	16,539
Total Capital Cost	259,989		251,989
Allowable Depreciable Amount (100%) =	231,989		

Construction financing options:
Financing type = Same as permanent
Capitalizable IDC = Calculate
Construction spread
Interest rate (%) = 8.5%
Construction period duration (months) = 24

Table 1-3 Pro Forma Results (4 pages)

ENERGY GROUP SHORT FORM PRO FORMA
DETAILED CASH FLOW REPORT

Sample Pro Forma (Case 1)
508 MW Combined Cycle

Item	Units	NPV @12.0%	2000	2001	2002	2003	2004	2005	2006	2007	2008	2009	2010	2011	2012	2013	2014
OPERATING REVENUES:																	
Electric Sales:																	
Base Energy Sales:																	
On-Peak	$1000	395,942	49,644	45,159	46,514	47,909	49,347	50,827	52,352	53,922	55,540	57,206	59,922	60,890	62,511	64,386	66,318
Off-Peak	$1000	395,942	49,644	45,159	46,514	47,909	49,347	50,827	52,352	53,922	55,540	57,206	59,922	60,890	62,511	64,386	66,318
Total	$1000	791,884	97,668	90,318	93,028	95,819	98,693	101,654	104,704	107,845	111,080	114,412	117,845	121,380	125,022	128,772	132,635
Additional Energy Sales	$1000	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Fixed O&M Payment	$1000	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Capacity Sales	$1000	43,460	5,818	5,818	5,818	5,818	5,818	5,818	5,818	5,818	5,818	5,818	5,818	5,818	5,818	5,818	5,818
Total Electric Sales	$1000	835,344	90,508	96,137	98,846	101,637	104,512	107,472	110,522	113,663	116,898	120,231	123,663	127,199	130,840	134,591	138,454
Miscellaneous Sales:																	
Steam Sales	$1000	38,728	4,703	4,703	4,703	4,703	4,703	4,703	4,703	4,703	4,703	4,703	4,703	4,703	4,703	4,703	4,703
Tipping Fees	$1000	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Metal Recovery Sales	$1000	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Ash Sales	$1000	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Total Miscellaneous Sales	$1000	38,728	4,703	4,703	4,703	4,703	4,703	4,703	4,703	4,703	4,703	4,703	4,703	4,703	4,703	4,703	4,703
Other Revenues:																	
	$1000	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	$1000	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	$1000	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Total Other Revenues	$1000	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
TOTAL OPERATING REVENUES	$1000	874,073	95,209	100,839	103,549	106,429	109,205	112,255	115,305	118,446	121,601	125,014	128,446	131,982	135,623	139,374	143,237
OPERATING EXPENSES:																	
Fuel Expenses (Natural Gas)	$1000	577,552	58,157	62,178	64,668	67,252	69,942	72,740	75,650	78,676	81,823	85,096	88,499	92,039	95,721	99,550	103,532
Non-Fuel O&M Expenses:																	
Variable:																	
PRB Chem (Lime) Usage	$1000	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Solid Waste Disposal	$1000	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Total Variable O&M	$1000	34,108	3,358	3,908	4,017	4,157	4,261	4,369	4,521	4,656	4,796	4,940	5,088	5,241	5,398	5,560	5,727
	$1000	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Total	$1000	34,108	3,358	3,908	4,017	4,157	4,261	4,369	4,521	4,656	4,796	4,940	5,088	5,241	5,398	5,560	5,727
Fixed:																	
Operating Labor	$1000	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Maintenance	$1000	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Total Fixed O&M	$1000	8,579	958	979	1,008	1,038	1,069	1,101	1,134	1,168	1,203	1,240	1,277	1,315	1,354	1,395	1,437
	$1000	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Total	$1000	8,579	958	979	1,008	1,038	1,069	1,101	1,134	1,168	1,203	1,240	1,277	1,315	1,354	1,395	1,437
Total Non-Fuel O&M Expenses	$1000	42,778	4,736	4,878	5,024	5,175	5,330	5,490	5,655	5,825	5,999	6,179	6,365	6,556	6,752	6,955	7,164
Other Operating Expenses:																	
Property Taxes	$1000	8,764	1,008	1,057	1,078	1,099	1,121	1,144	1,167	1,190	1,214	1,239	1,263	1,289	1,314	1,340	1,367
Insurance	$1000	4,678	538	564	575	586	598	610	622	635	648	661	674	688	701	715	730
	$1000	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	$1000	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Total Other Operating Expenses	$1000	13,441	1,554	1,598	1,652	1,685	1,704	1,744	1,795	1,827	1,870	1,914	1,959	2,005	2,052	2,101	2,150
TOTAL OPERATING EXPENSES	$1000	633,792	68,077	68,647	71,317	74,099	76,977	79,975	83,090	86,327	89,692	93,189	96,822	100,600	104,526	108,606	112,846
CASH AVAILABLE FOR FINANCING EXPENSES	$1000	237,277	32,213	32,273	32,312	32,327	32,317	32,301	32,215	32,119	31,909	31,825	31,623	31,381	31,097	30,769	30,391

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Sample Pro Forma (Case 1)
500 MW Combined Cycle

2015	2016	2017	2018	2019	2020	2021	2022	2023	2024	2025	2026	2027	2028	2029
69,307	70,356	72,467	74,641	76,880	0	0	0	0	0	0	0	0	0	0
69,307	70,356	72,467	74,641	76,880	0	0	0	0	0	0	0	0	0	0
136,614	140,713	144,954	149,282	153,761	0	0	0	0	0	0	0	0	0	0
0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
5,818	5,818	5,818	5,818	5,818	0	0	0	0	0	0	0	0	0	0
142,433	146,531	150,753	155,101	159,579	0	0	0	0	0	0	0	0	0	0
4,768	4,768	4,768	4,768	4,768	0	0	0	0	0	0	0	0	0	0
0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
4,768	4,768	4,768	4,768	4,768	0	0	0	0	0	0	0	0	0	0
0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
147,216	151,314	155,536	159,884	164,362	0	0	0	0	0	0	0	0	0	0
107,673	111,960	116,459	121,117	125,962	0	0	0	0	0	0	0	0	0	0
0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
5,898	6,075	6,258	6,445	6,639	0	0	0	0	0	0	0	0	0	0
0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
5,898	6,075	6,258	6,445	6,639	0	0	0	0	0	0	0	0	0	0
0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
1,480	1,524	1,570	1,617	1,666	0	0	0	0	0	0	0	0	0	0
0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
1,480	1,524	1,570	1,617	1,666	0	0	0	0	0	0	0	0	0	0
7,379	7,600	7,828	8,063	8,305	0	0	0	0	0	0	0	0	0	0
1,394	1,422	1,451	1,480	1,509	0	0	0	0	0	0	0	0	0	0
807	831	856	882	908	0	0	0	0	0	0	0	0	0	0
0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
2,201	2,253	2,307	2,361	2,417	0	0	0	0	0	0	0	0	0	0
117,253	121,833	126,594	131,542	136,684	0	0	0	0	0	0	0	0	0	0
29,963	29,481	29,942	29,342	27,678	0	0	0	0	0	0	0	0	0	0

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CASH AVAILABLE FOR FINANCING EXPENSES	$1000	237,277	32,212	32,273	32,312	32,327	32,317	32,281	32,215	32,119	31,989	31,825	31,623	31,381	31,097	30,768	30,391
FINANCING EXPENSES:																	
Lease Expenses:																	
Lease Payment	$1000	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Other Fees	$1000	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Total Lease Expenses	$1000	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Long-Term Debt Expenses:																	
Debt Service:																	
Beginning Balance	$1000		207,191	196,593	185,093	172,617	159,079	144,391	128,455	111,164	92,403	72,048	49,963	26,000	(0)	(0)	(0)
Total Principal	$1000	95,934	10,598	11,499	12,477	13,537	14,688	15,936	17,291	18,761	20,355	22,086	23,963	26,000	0	0	0
Total Interest	$1000	70,807	17,611	16,710	15,733	14,672	13,522	12,273	10,919	9,449	7,856	6,124	4,247	2,210	(0)	(0)	(0)
Total Debt Service	$1000	174,741	28,210	28,210	28,210	28,210	28,210	28,210	28,210	28,210	28,210	28,210	28,210	28,210	(0)	(0)	(0)
Other Fees	$1000	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Total Long-Term Debt Expenses	$1000	174,741	28,210	28,210	28,210	28,210	28,210	28,210	28,210	28,210	28,210	28,210	28,210	28,210	(0)	(0)	(0)
TOTAL FINANCING EXPENSES	$1000	174,741	28,210	28,210	28,210	28,210	28,210	28,210	28,210	28,210	28,210	28,210	28,210	28,210	(0)	(0)	(0)
BEFORE-TAX OPERATING CASH FLOW	$1000	62,535	4,002	4,063	4,102	4,118	4,108	4,071	4,005	3,909	3,780	3,615	3,413	3,172	31,097	30,768	30,391
DEPRECIATION EXPENSES:																	
Initial Capital Cost	$1000	107,928	11,599	22,039	19,835	17,852	16,066	14,460	13,699	13,699	13,699	13,699	13,699	13,699	13,699	13,699	13,699
Annual Capital Investments	$1000	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
TOTAL DEPRECIATION EXPENSES	$1000	107,928	11,599	22,039	19,835	17,852	16,066	14,460	13,699	13,699	13,699	13,699	13,699	13,699	13,699	13,699	13,699
TAXABLE INCOME	$1000	50,542	3,001	(6,476)	(3,256)	(197)	2,729	5,548	7,598	8,971	10,436	12,002	13,678	15,473	17,399	17,069	16,692
ADJUSTED TAXABLE INCOME	$1000		3,001	(6,476)	(3,256)	(197)	2,729	5,548	7,598	8,971	10,436	12,002	13,678	15,473	17,399	17,069	16,692
INCOME TAXES:																	
Municipal	$1000	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
State	$1000	2,780	165	(356)	(179)	(11)	150	305	418	493	574	660	752	851	957	939	918
Federal	$1000	16,717	993	(2,142)	(1,077)	(65)	903	1,835	2,513	2,967	3,452	3,970	4,524	5,118	5,755	5,646	5,521
TOTAL INCOME TAXES	$1000	19,497	1,158	(2,498)	(1,256)	(76)	1,053	2,140	2,931	3,461	4,026	4,630	5,276	5,969	6,711	6,584	6,439
AFTER-TAX OPERATING CASH FLOW	$1000	43,039	2,845	6,561	5,358	4,193	3,055	1,931	1,075	448	(246)	(1,015)	(1,863)	(2,797)	24,386	24,184	23,952
RESERVE FUND TRANSFERS:																	
Debt Reserve Fund	$1000	3,978	0	0	0	0	0	0	0	0	0	0	0	15,500	0	0	0
Working Capital Fund	$1000	1,037	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
TOTAL RESERVE FUND TRANSFERS	$1000	5,015	0	0	0	0	0	0	0	0	0	0	0	15,500	0	0	0
ADDITIONAL CAPITAL INVESTMENTS	$1000	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
AFTER-TAX INTEREST INCOME	$1000	10,090	1,406	1,503	1,471	1,441	1,411	1,382	1,359	1,343	1,331	1,331	1,331	1,331	1,159	1,153	1,147
AFTER-TAX CASH FLOW	$1000	58,134	4,250	8,064	6,829	5,634	4,466	3,313	2,434	1,792	1,085	317	(531)	14,035	25,544	25,337	25,099
CUM. PW NET CASH DISTRIBUTION	$1000		(54,559)	(47,910)	(43,049)	(39,469)	(36,934)	(35,256)	(34,155)	(33,431)	(33,040)	(32,938)	(33,091)	(29,488)	(23,634)	(18,450)	(13,664)
FINANCING COVERAGE RATIOS:																	
Lease			0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
Long-Term Debt			1.142	1.144	1.145	1.146	1.146	1.144	1.142	1.139	1.134	1.128	1.121	1.112	0.000	0.000	0.000

29,963	29,481	28,942	28,342	27,678	0	0	0	0	0	0	0	0	0	0
0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)
0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)
(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)
0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)
(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)
29,963	29,481	28,942	28,342	27,678	0	0	0	0	0	0	0	0	0	0
6,849	0	0	0	0	0	0	0	0	0	0	0	0	0	0
0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
6,849	0	0	0	0	0	0	0	0	0	0	0	0	0	0
23,114	29,481	28,942	28,342	27,678	0	0	0	0	0	0	0	0	0	0
23,114	29,481	28,942	28,342	27,678	0	0	0	0	0	0	0	0	0	0
0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
1,271	1,621	1,592	1,559	1,522	0	0	0	0	0	0	0	0	0	0
7,645	9,751	9,573	9,374	9,154	0	0	0	0	0	0	0	0	0	0
8,916	11,372	11,164	10,933	10,677	0	0	0	0	0	0	0	0	0	0
21,047	18,109	17,778	17,409	17,001	0	0	0	0	0	0	0	0	0	0
0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
0	0	0	0	10,000	0	0	0	0	0	0	0	0	0	0
0	0	0	0	10,000	0	0	0	0	0	0	0	0	0	0
0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
1,072	995	986	977	966	0	0	0	0	0	0	0	0	0	0
22,118	19,104	18,764	18,386	27,967	0	0	0	0	0	0	0	0	0	0
(10,256)	(7,474)	(5,034)	(2,899)	(0)	0	0	0	0	0	0	0	0	0	0
0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000

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2.0 Site Analysis

Three potential site locations for a new mine-mouth lignite fueled power facility in North Dakota have been identified for investigation. These sites include Bell Field, Crooked Creek and New Salem.

Black & Veatch proposes to analyze the identified sites using an approach which considers the physical characteristics of major resources and infrastructure required to support the proposed facilities, as well as economic considerations associated with the development of new electric generation capacity at each site. The major factors include electric transmission, water, and fuel supply. In addition, consideration will be given to land area, environmental features, and permitting issues related to the potential sites.

The product of this study will include a ranking of the sites according to the results of the overall financial pro forma. The pro forma analysis provides several benefits. First, it ranks the sites and identifies which sites will allow a reasonable rate of return. If the preferred site does not coincide with the top ranked site from this study, the pro forma will indicate the expected rate of return for each site, allowing an informed decision. Second, the pro forma allows sensitivity analysis to be performed quickly to determine the robustness of each site.

Site rankings will consider the impact of the sensitivity analysis as well as a discussion of less tangible items such as environmental issues and community impacts.

For the purposes of the site selection ranking study, Black &Veatch will assume a 500 MW subcritical pulverized coal (PC) plant. Cost and performance data for the base plant will be developed in the Pulverized Coal and Circulating Fluidized Bed Cost and Performance Study (Study #4). It is logically assumed that the relative site evaluation will not be driven by choice of PC or circulating fluidized bed (CFB) technology.

ABB has been retained by GNP to analyze site specific transmission issues. Marsden and Marsden will evaluate the site specific mining issues. Both of the studies will be integrated into the siting analysis

Task 1: Project Initiation

Approximately ten days after notice-to-proceed, a project kick-off meeting will be held. The purpose of this meeting is to introduce key personnel, to finalize the basis of the study, and to ensure mutual agreement on the approach and final deliverables. Black & Veatch will provide GNP with a list of desired information five days prior to the meeting.

For purposes of this proposal, we have assumed that this meeting will be held in Kansas City in Black & Veatch offices.

Task 2: Study Basis Document

Within five working days of the kick-off meeting, Black & Veatch will prepare a letter to GNP detailing the basis of the study. It is assumed that a majority of the technical and financial parameters will have been discussed during the kickoff meeting.

The choice of technology and size will be a key point in this document. In terms of relative site ranking, the choice of subcritical, conventional supercritical, or advanced supercritical PC technology is believed to be negligible. In addition, the impact on relative site ranking between PC and CFB is considered to be minor. Therefore, Black & Veatch recommends using a 500 MW subcritical PC unit as the basis of the site evaluation study.

These conceptual technical requirements provide a reasonable definition of project needs, such as fuel requirements, transmission interconnection requirements, land requirements, equipment transportation requirements, water use and wastewater disposal requirements, etc.

Task 3: Preliminary Data Collection and Review

During this task, Black & Veatch will collect readily available information on existing infrastructure, resources and constraints that are important for project development. Black & Veatch will synthesize the information provided by GNP with collected in-house information on existing infrastructure, required resources, and location of environmentally sensitive areas. It is assumed that GNP will provide information such as locations of potential new mine development.

Black & Veatch in-house resources will largely consist of maps and mapping tools. We will use our Geographic Information System (GIS) tool, POWERmap, to identify available infrastructure within the siting region. POWERmap resources will be used to identify the geographical location and physical attributes of infrastructure such as transmission lines, substations, existing power plants, highways, railroads, surface water bodies, etc. POWERmap provides access to several power industry databases, updated quarterly by Resource Data International (RDI), to graphically display this information in a logical, comprehensive format.

In addition to the use of existing infrastructure information to minimize distances to needed resources, POWERmap will also be used to identify areas within the siting region, which are inappropriate for new generation development. Such areas may include air quality non-attainment areas, protected wildlife areas, or other environmentally sensitive areas.

Black & Veatch will also use readily available in-house information such as 7.5 minute USGS quadrangle topographic maps, potential water supply resource maps, available resources identifying relevant environmentally sensitive areas, and aerial photos (if available) to confirm site information.

Task 4: Preliminary Site Profiles

Based on the information gathered in previous tasks and discussions with GNP, Black & Veatch will prepare preliminary site profiles. These profiles will characterize each site and identify key differences. The profiles will also identify items such as expected water source, wastewater discharge location, site access, and existing facilities.

Each site profile will include a preliminary site arrangement drawing.

Task 5: Site Visits

A field reconnaissance trip to each site location will be performed by the Black & Veatch Project Manager, a site development specialist and an environmental specialist to confirm infrastructure conditions, other site information, and to assist in determining site specific development costs. Black & Veatch encourages the involvement of GNP in the site visits.

The trip is envisioned to require 5 days, inclusive of travel. It is assumed that there will be a planning meeting prior to visiting the sites as well as a debriefing meeting after all site visits have been concluded.

Task 6: Cost-Based Site Specific Profiles

Based on the information obtained from the site visits, the site profiles and site arrangement drawings will be revised as necessary.

Activities within this task will be directed at providing estimated costs for various site-specific project development factors for later use in Task 7 (Development of Pro Forma Cost Inputs). This task will also involve the identification and assessment of potential environmental issues and community impacts for each site. These factors are typically not readily quantifiable and are often considered as intangibles for site comparison studies.

As noted above, Black & Veatch will estimate the impacts that the following site-specific characteristics would be expected to have on the project at each site.

- Fuel supply
- Transmission
- Plant layout (site development)
- Existing facilities

- Performance (output and heat rate)
- Water supply/treatment/disposal
- Site transportation access

Black & Veatch anticipates that Marsden and Marsden will provide preliminary fuel prices for each site. A brief summary of their findings will be included in the final report.

It is anticipated that the results of cost and impact studies performed by others on the transmission system at each site will be available to Black & Veatch. These results will be incorporated into the Site Analysis Study, as appropriate. Black & Veatch intends to use this transmission system information in the site ranking analysis.

In addition to consideration of factors that are readily quantifiable as contributors to project pro formas, a number of factors associated with the selected sites will also be reviewed and summarized for comparative site analysis. While these differences among sites are not readily quantifiable, they can be important in a comparative analysis and will be identified and discussed in this task. Typical factors that will be considered here include the following.

- Environmental Issues
  - Wastewater disposal
  - Air quality constraints
  - Noise
  - Wildlife habitat impact
- Community Impacts
  - Land use
  - Socioeconomic
  - Visual
  - Cultural
  - Public acceptance

Readily identifiable site differences associated with regulatory approvals or the potential for delays due to environmental permitting issues will also be addressed. The results of the complete siting factor evaluation process described in this task will be summarized in the comprehensive Site Analysis Report.

Task 7: Development of Pro Forma Cost Inputs

In this task, the cost impacts for each site, developed in Task 6, (as well as the base capital cost developed in Study #4) will be incorporated into a site specific pro

forma as part of Study 1 of this proposal (Financial Pro Forma Analysis). The pro forma analysis for each site will model a base capital cost estimate as well as cost-based sensitivities that reflect uncertainties at each site. Results of the pro forma analysis will then be used to perform Task 8.

Task 8: Prepare Draft Report

Black & Veatch will provide GNP with a Draft Site Analysis Report that will document the basis of ranking, process used, findings, results, and conclusions. A discussion of this draft report with GNP will occur to facilitate understanding, discussion, and agreement.

Task 9: Prepare Final Report

Black & Veatch will provide a Final Site Analysis Report within two weeks of receipt of GNP comments. Because Black & Veatch anticipates close coordination with and involvement of GNP staff throughout the duration on this project, we expect minimal revisions between the draft report and the final report.

3.0 Market Assessment

An important part of determining the overall feasibility of the project from an investor standpoint will be to estimate the revenues to be earned by the project in a competitive dispatch environment. This important information will be determined in this second primary study, with the results feeding into the project pro formas for the three candidate sites.

The Black & Veatch approach to forecasting wholesale electric prices and power project revenues in the Mid America Power Pool (MAPP) and the Western Systems Coordinating Council (WSCC) is based on the premise that, over the next few years, all generating units in the region will be competitively committed and dispatched to meet the total load in the region subject to transmission constraints. It is further assumed that commitment and dispatch will be based on bid prices which, at a minimum, are set to cover short-run marginal costs of production and include ever greater allocations of fixed costs as the market tightens during high load hours. Recovery of fixed costs, including capital and fixed operating costs, are capped by the long-run marginal cost of capacity. The marginal cost of capacity is set by each year's amortized cost of new generators built to meet growth. The marginal cost of capacity is typically based on simple cycle combustion turbine generators unless the increased efficiency of combined cycle generators allows them to earn energy revenue that more than offsets their capital cost premium.

In developing the fixed cost recovery cap, Black & Veatch amortizes capacity costs of the marginal technology using debt/equity ratios, return and interest rates, loan term, tax and insurance assumptions consistent with merchant plant financing.

In developing the projection of regional generator additions in MAPP and WSCC, Black & Veatch will utilize its in-house database of new committed projects followed by a least-cost mix of generic simple and combined cycle generators. Black & Veatch's database of committed projects is developed, screened, and updated based on EPC solicitations, contacts with permitting agencies, direct communications with developers, turbine order lists, and press announcements.

The following tasks and subtasks describe the systematic steps Black & Veatch proposes to use in developing 20-year regional market price and revenue forecasts for a new generation project in the MAPP and WSCC.

Task 1: Develop a Benchmark Model of the Region

a) Use Henwood Energy Service's (HESI) MULTISYM/EMSS hourly market simulation program to simulate the electric market consisting of the MAPP and

the WSCC, and key surrounding regions, herein referred to as the Midwest Market.

b) Use Black & Veatch's most recent simulation of the entire Eastern Interconnect to project transfers "into" and "out of" the Midwest Market.

c) Start with the detailed EMSS database for the Midwest Market.

d) Review and revise as necessary, data in EMSS, especially operating constraints (availability, start-up times and costs, ramp rates, no-load fuel costs, periodic off-peak maintenance requirements, load following capability, etc.), transmission area modeling and inter-area transmission constraints and costs. (The Transmission Oriented Production Simulation (TOPS) version of the MULTISYM model will be used to reflect load-flow-based constraints between market areas.

e) Test operating assumptions and transmission constraints using a recent historical year (2000). Check output by unit type. (Output for the major units by fuel type should approximate actual output during the benchmark year with the exception of the impacts of increased Pool exports likely to occur as deregulation progresses.)

Task 2: Project Key Inputs

a) Project load growth in light of actual historical trends in growth and interruptible loads.

b) Project delivered fuel prices in light of the changing supply and demand for fuels in the region.

c) Estimate existing unit characteristics by comparing the EMSS database with data from NERC, UDI, and RDI.

d) Estimate new unit characteristics based on Black & Veatch projections of efficiency and capital cost trends and recent experience developing "greenfield" plants in MAPP and WSCC.

Task 3: Develop Regional Expansion Plan(s)

a) Quantify capacity additions necessary to meet currently targeted reserve margins.

b) Include new generator additions known by Black & Veatch to be sufficiently far in the development process to avoid cancellation (committed projects).

c) Model the proposed new project reflecting its marginal dispatch cost and applicable operating constraints.

d) Identify additional least-cost regional capacity additions by testing then-commercially-available technologies with varying tradeoffs in capital and operating costs.

e) Test for the economic retirement of existing generators by identifying generators with negative operating margins and comparing the forecast of capacity value described in Task 5 to their negative margins. (If total revenue is not expected to more than cover operating costs over a reasonable time period, it must be assumed that the generator will be shut down rather than sustain continued losses.)

Task 4: Project Plant Operations, Energy Clearing Prices, and Energy Revenues

a) Run MULTISYM/EMSS using the least-cost expansion plan from Task 3.
b) Refine bidding strategies by technology based on anticipated changes, if any, in regional bidding rules and transmission pricing.
c) Produce projections of the energy market clearing prices in the Midwest Market in general and Minnesota in particular.
d) Project energy market revenues and operating expenditures for the New LV-21 generator. (To the extent that the New LV-21 generator appears to be eligible for ancillary service revenues when not dispatched for the energy market, additional revenue projections associated with these markets will be projected.)

Task 5: Project the Equilibrium Value of Capacity and Capacity Revenues

a) Project the revenue to be received by the marginal unit type when dispatched in accordance with short-run marginal costs in a market assumed to have just enough capacity to meet demand including reliability reserve requirements.
b) Compare the net operating income received in the energy only market to the sum of fixed operating costs plus the amortized cost of capital of the marginal unit.
c) Estimate the additional payment necessary to keep the market in equilibrium based on the total fixed costs of the marginal unit type less the net operating income from the energy only market. Include an investment inducing return as a normal cost of doing business.
d) Because the generators assumed to reflect the marginal cost of capacity (simple or combined cycle combustion turbines for now,) may not receive sufficient revenue in the energy market to cover all fixed costs, it is assumed that the market will need to make up the difference. Otherwise, the future supply of capacity will fail to meet the demand. As a consequence, the additional revenue required to yield an investment inducing return for the marginal generator is assumed to be paid to all generators. This resultant capacity payment will be allocated over, and added to, the projected energy market clearing prices during the peak hours only. The hourly allocation will be in inverse proportion to the regional loss of load probability each hour.

e) Project capacity revenues for the New LV-21 generator based on the rated output of the facility and the capacity price projection.

Task 6: Conduct Sensitivity Analyses

a) Define and construct sensitivity cases designed to reflect potential uncertainties in input assumptions which could impact the profitability of the New LV-21 generator
b) Conduct sensitivity simulations and report the resultant range in results

Task 7: Document Resulting On/Off-Peak Power Price and Revenue Projections

a) Report monthly On-Peak and Off-Peak market price projections for 2002-2021.
b) Describe future trends in market clearing prices as functions of factors such as fuel price escalation, percent time each fuel is on the margin, average efficiency of units on the margin and capital costs of the marginal technology.
c) Explain projections of unit revenues and expenses as a function of dispatch order, transmission constraints and the cost of units/fuel on the margin when the New LV-21 generator is dispatched.

Task 8: Prepare Draft Report

Black & Veatch will issue a draft report containing the information developed in Tasks 1 and 7 as defined above.

Task 9: Prepare Final Report

Two weeks after receiving comments on the draft report Black & Veatch will submit the final report to GNP.

4.0 PC and CFB Cost and Performance

Task 1: Kick-off Meeting

Approximately one week after notice-to-proceed, the Black & Veatch Project Manager and Lead Engineer will travel to Colorado to meet with key GNP personnel. The purpose of this meeting will be to introduce key personnel, to finalize the basis of the study, and to ensure mutual agreement on the approach and final deliverables. Several days prior to the trip Black & Veatch will provide GNP with a list of required inputs to the study. This will allow GNP to gather as much information as possible prior to the kick-off meeting.

Task 2: Prepare Study Basis Document

Within approximately one week from the kick-off meeting, Black & Veatch will prepare a letter to GNP detailing the basis of the study. This letter will include technical and environmental parameters. It is assumed that most of these parameters will remain unchanged from the LV-21 Phase 1 Technology Characterization Study. Other parameters will be provided by GNP or agreed to during the kick-off meeting. For those parameters that have not been discussed, Black & Veatch will provide recommendations. Comments received from GNP within one week of issuance will be incorporated into the study basis document.

Task 3: Characterize Conventional Technologies

The following lignite PC and CFB plant characteristics will be revised and updated as appropriate.

System Descriptions

A general written description of representative plants will be prepared. Detailed system descriptions are not included in this scope.

Performance and Emission Estimate

To estimate the performance Black & Veatch will utilize a combination of vendor-supplied data and in-house computer programs. Performance estimates will be provided for full and part load operation at a single set of ambient conditions.

The study will estimate the emissions of particulate as PM10, sulfur dioxide, carbon dioxide (uncontrolled), and nitrogen oxides.

It is assumed that the lignite based pulverized coal unit will use semi-dry lime Flue Gas Desulfurization scrubbers for removal of the sulfur dioxide, pulse jet fabric

filters or electrostatic precipitators for removal of the particulate matter, and Selective Catalytic Reduction will be used to control post combustion NO_x emissions. The CFB will use in-bed limestone injection to control sulfur dioxide, pulse jet fabric filters or electrostatic precipitators for removal of the particulate matter, and Selective Noncatalytic Reduction will be used to control post combustion NO_x emissions.

Capital Cost Estimate

A cost estimate for installing the 500 MW PC and CFB options will be developed as part of the study. The cost estimates will be based on a multiple package contracting philosophy. Black & Veatch will utilize a combination of in-house data from previous conceptual design activities and bid proposals, and data from equipment suppliers. Initial estimates for siting analysis will be provided with an accuracy of approximately ±20 to 25 percent.

Capital costs for all facilities and expenses incurred by the owner will be included. The estimates will be broken down into procurement, furnish and erect, and construction contracts by discipline. Indirect costs such as general indirects, engineering, and construction management will also be included.

Costs will be presented by categories such as Civil Work, Mechanical Systems, Sub Contracts, and others, which will be summed to a total Capital Cost Estimate.

Along with the project capital costs, a labor market study will also be conducted. The labor study will involve obtaining updated labor man-hour cost information for the project location, as well as assessing labor productivity information for that area. Since construction labor shortages are currently prevalent across the country, developing a labor availability study for the particular area of the country is becoming critical to establishing a reasonable productivity factor on the man-hours.

Operation and Maintenance (O&M) Estimate

Average annual non-fuel fixed and variable O&M costs will be estimated. Fixed costs are primarily labor costs. Variable costs are consumables, supplies, chemicals, spare parts, maintenance and repairs, and waste disposal and are dependent on capacity factor.

Project Schedule

A bar-chart schedule will be developed. The schedule will include major activities such as engineering design, permitting and licensing, equipment procurement, construction, and startup.

Risk Analysis

Risk analysis will be performed on the overnight capital cost estimate of the subcritial 500 MW PC unit. The risk analysis or Monte Carlo simulation will be run to generate a projected high and low range for different categories of cost items included in the estimate. The cost ranges will be based on Black & Veatch's projections for the categories of costs to be either higher or lower than the base cost estimate or "more likely" value.

Resource Requirements and Waste Streams

Annual consumption estimates for fuel, water, lime (or limestone), and ammonia, as well as annual production estimates for ash and wastewater will be presented in tabular form.

Task 3a: Refined Cost Estimate (optional)

The above-described cost estimate is characterized as indicative, and at a ±20 to 25 percent confidence level appropriate for technology selection and initial pro forma analysis.

Refinement of this estimate to a ±15 percent confidence level will include line item summaries for such items as:

- Each piece of major equipment (steam generator, turbine-generator, fuel handling system equipment, and all major pumps, fans, tanks and vessels, and other auxiliary equipment.)
- Plant switchyard and associated intra-plant transmission line connecting the generator to the switchyard.
- Site work
- Foundations
- Structural Steel
- Piping and piping supports
- Valves
- Insulation
- Electrical equipment and electrical commodities
- Instrumentation and controls
- Underground utilities
- Buildings and structures, including the generation building, AQCS buildings, water treatment building, maintenance and warehouse building, administration building, and any other site buildings and structures.
- Architectural features

- Site finishing
- Parking
- Lighting
- Fire protection
- Construction indirect costs
- Engineering
- Contingency, fees and profit margin.

A cost estimate will be prepared in Black & Veatch standard estimating format. It will include a brief description of each line item of cost and will provide the appropriate quantities, unit costs, unit man-hours, hourly labor rates and total costs for equipment and material, construction and erection labor, and total cost. Costs such as engineering and procurement, construction management, start-up testing and project indirect costs will be shown separately.

Costs will be based on Black & Veatch's in-house database of actual project costs and man-hour data for similar projects. Budgetary quotations for major components will be obtained if deemed necessary. Wage rates for construction labor will be developed as a composite average rate based on currently available data for various crafts, expected crew sizes, etc. Contingency levels will be established based on Black & Veatch experience in recent market conditions. Escalation of equipment, material and labor components will be applied based on current "best estimate" efforts.

Task 4: Prepare Draft Report

Black & Veatch will issue a draft report containing the information developed in Tasks 2 and 3 as defined above.

Task 5: Prepare Final Report

Two weeks after receiving comments on the draft report Black & Veatch will submit the final report to GNP.

5.0 IGCC Cost and Performance

The IGCC task will build on the information provided in Section 6 of the Phase 1 LV-21 Technology Characterization Study issued by Black & Veatch in July of 2000. The level of detail provided in this study will be similar to that provided for the conventional pulverized coal technologies in Section 4 of the Technology Characterization Study issued by Black & Veatch in July of 2000, and updated in Study #4 of this proposal.

Task 1: Kick-off Meeting

It is assumed that Study #5 will be performed in parallel with Study #4. Therefore there will be a joint Kick-off Meeting for these studies.

Task 2: Summarize Commercial Status of Gasification Technologies

A brief description of commercial status of each of the three gasification technologies, entrained flow, fluidized bed, and moving (or fixed) bed. The expected state-of-the-art technology for a project with a commercial operation date of 2008 will be identified.

Task 3: Summarize IGCC Projects

A summary of IGCC projects currently operating and under development worldwide, including problems experienced, and byproducts produced.

Task 4: Summarize Potential DOE Funding Opportunities

A brief summary of the Department of Energy (DOE) funding for future IGCC research and development.

Task 5: Justify Entrained Flow Gasification Choice

A description of why entrained flow gasification technology is the most appropriate for this application.

Task 6: Description of Coal Drying Technologies

A brief description of North Dakota lignite pretreatment for entrained flow gasification. Vapor phase drying and UNDEERC hot water drying will be evaluated. Drying will be required for the Texaco entrained bed gasification technology. Hot water drying may also be attractive for the Global Energy E-Gas entrained flow gasification technology.

Task 7: Characterize Entrained Flow IGCC Technologies

System Descriptions

A written description of the plant will be prepared. Detailed system descriptions are not included in this scope.

Performance and Emission Estimate

Performance summary for a 500 MW IGCC Plant based on entrained flow gasification technology using North Dakota lignite feedstock. IGCC Plant heat rate estimates will be provided for the three commercial entrained bed gasification technologies. Auxiliary power consumption, makeup water, wastewater, waste solids, byproduct solids, and air emissions rate estimates will also be provided.

Capital Cost Estimate

Summary level, conceptual installed cost estimate for a greenfield 500 MW IGCC Plant based on entrained flow gasification technology (Global Energy E-Gas (formerly Destec), Shell, and Texaco) using North Dakota lignite feedstock. The estimate will be broken down into four major components: Air Separation, Gasification, Power Generation, and Balance of Plant. The cost estimate accuracy will be ±20 to 25 percent. Estimates will also be provided for the installed cost differences between the three commercial entrained flow gasification technologies.

Operation and Maintenance (O&M) Estimate

Summary level estimates of operating and maintenance costs for a 500 MW IGCC Plant based on entrained flow gasification technology using North Dakota lignite.

Project Schedule

A bar-chart schedule will be developed. The schedule will include major activities such as engineering design, permitting and licensing, equipment procurement, construction, and startup.

Task 8: Prepare Draft Report

Black & Veatch will issue a draft report containing the information developed in Tasks 2 through 7 as defined above.

Task 9: Prepare Final Report

Two weeks after receiving comments on the draft report Black & Veatch will submit the final report to GNP.

6.0 Environmental Planning and Permitting Assessment

GNP is proposing to develop a new 500 MW lignite fired power generation facility to be located adjacent to or nearby lignite mines located in Western North Dakota. As part of the feasibility studies being undertaken in support of this development, GNP will need to factor in the potential environmental impacts, issues and regulatory requirements that will need to be addressed in the planning, design, and operation of the proposed facility.

Black & Veatch proposes to provide to GNP a comprehensive report that will discuss the key environmental regulatory issues that will need to be considered and addressed in the short and long range planning for design and operation of a large lignite fired power plant. Specifically, Black & Veatch will provide an Environmental Licensing Assessment and Regulatory Issues document to assist GNP in planning strategies and activities for successful development of a large lignite plant in North Dakota. Additionally, Black & Veatch will verify the North Dakota Department of Health (NDDH) air pollutant emissions inventory and conduct an independent modeling assessment of the proposed new lignite facility to determine the validity of the NDDH's preliminary increment modeling results.

The Regulatory Issues portion of the report will discuss the background and current status of evolving environmental initiatives that will either directly affect or influence decisions regarding plant design and operations. The Licensing Assessment portion of this document will more specifically identify the various permits and approvals that will be required to authorize construction and operation of a lignite plant in North Dakota. This document will also incorporate the findings from the Modeling Assessment and Regulatory Issues Review into a step-by-step plan for addressing all the relevant and applicable environmental licensing issues.

A more detailed description of the scope of these reports is provided below.

Task 1: Regulatory Issues Review (optional)

Black & Veatch anticipates that this task will have been completed in a previously conducted fatal flaw analysis. If this task has not yet been completed, it can be done as an optional component of this study.

There are several environmental regulatory initiatives that must be considered in development of a new electric generation facility. Several of these regulatory initiatives are specifically targeted at coal fired plants, while others are more generally directed at the electric generation industry itself. It is critical that each of these issues be considered in the long range planning, as they will have significant impacts on the selection of air

quality control technologies, economic and technical strategies for achieving compliance, and potential future implementation of mitigation measures.

The regulatory initiatives and sensitive environmental issues of greatest concern to development of a lignite fired power plant are contributions to acid rain emissions, ozone impacts/NO_x emissions, fine particulate matter emissions, regional haze, greenhouse gas emissions, mercury emissions, cooling water supply (intake design and cooling technology), ash disposal and chemical handling. Black & Veatch proposes to provide a brief background on each of these issues with regard to their regulatory basis and environmental impact/human health concerns, discuss compliance/permitting requirements under current and proposed regulatory programs, identify available control technologies and design options, and offer strategies for individual consideration and overall planning purposes.

Task 2: Modeling Assessment

The air quality modeling assessments would be performed to independently assess or audit the NDDH's recent Class I and Class II Increment Analyses for SO_2. The goal of these analyses will be to determine whether it is feasible to site a new coal fired power plant in Western North Dakota. Specifically, the analyses will be composed of the following activities and be dependent upon the amount of information which can be used from NDDH's initial analyses.

- Review NDDH's SO_2 analyses and compare the data and methodology used against EPA guidelines and current modeling practices.
- Review NDDH's SO_2 emissions inventory used in their analyses and if needed verify the inventory on a source-by-source basis for accuracy.
- Independently perform an SO_2 increment modeling analyses for the Class II and applicable Class I areas using the appropriate modeling methodologies and compare to NDDH's findings. This scope assumes that the refined CALMET database that will be available from the NDDH and will be used in the analysis.
- Perform an SO_2 increment modeling analyses for the Class II and applicable Class I areas for the primary site using preliminary engineering performance and stack emissions data.
- Provide a written report summary of the assessment findings.

Additionally, visibility or regional haze issues for Federal Class I areas can now play a key role in the permitting of any new PSD source locating near a Class I area. The Visibility Impairment (significant increase in uniform haze) Analyses performed by NDDH can also be reviewed as discussed above in the Regulatory Issues Review.

Task 3: Licensing Assessment

The applicability, nature and extent of permitting requirements for the proposed lignite fired generation facility will primarily be determined by the specific location of the plant site, planned operations, and utility interconnections. Black & Veatch will research federal, state, and local statutes, regulations, and ordinances to determine applicable environmental permits, licenses, and approvals required for construction of the proposed electric generation facility, and provide a report that outlines permitting requirements and the anticipated timeframes for obtaining the requisite permits.

Based on the assumption that the facility will be a 500 MW lignite fired plant located in Western North Dakota, in very close proximity to utility interconnections (lignite mines, surface water supply and electric transmission substation), Black & Veatch will research the applicable regulatory environmental licensing requirements. As part of this research, Black & Veatch will (with the permission of GNP) contact federal, state and local agencies by telephone to confirm the applicable permitting requirements for the facility, clarify the order and duration of each step in the permitting process, and explore options for waivers or flexibility in the substantive and procedural permit application review requirements. Following this research and agency consultation, Black & Veatch will prepare a Licensing Assessment Memorandum, which will include the following:

- A written summary of all major state and federal environmental permits potentially required for construction and operation that briefly describes each permit's applicability, requirements, and application review processes.
- A discussion of key considerations, strategies and risks associated with obtaining the necessary permits.
- A table that identifies each applicable permit or approval, the issuing agency, the regulated project activity, and the expected time period for agency review of the application.
- A recommended strategy and step-by-step plan for performing all the necessary environmental studies and analysis for preparation and submittal of applications for the requisite permits and approvals.
- A preliminary bar chart schedule identifying the general timing for the preparation, submittal and agency review associated with individual permits.

The purpose of this Licensing Assessment is to provide GNP with a valuable reference document for planning permitting strategy as well as a tracking tool for use throughout project development.

Task 4: Prepare Draft Report

Black & Veatch will issue a draft report containing the information developed in Tasks 1 and 3 as defined above.

Task 5: Prepare Final Report

Two weeks after receiving comments on the draft report Black & Veatch will submit the final report to GNP.

7.0 Wind Energy Advisory Services

It is proposed to integrate up to 300 MW of wind energy into the plan of the lignite plant. While not likely to be located at the lignite plant site, the wind energy could be sited along the transmission line connecting the lignite plant to a long-distance transmission line.

Black & Veatch will provide technology and cost advisory services for the integration of wind energy. Black & Veatch wind energy specialists will review plans and proposals for the development of wind energy facilities in association with the lignite facility, and will be available to attend meetings and presentations on the subject. The reviews will include both a technical and financial analysis of both the proposed technology and site.

Personnel Curriculum Vitae

This section contains the curriculum vitae for the Black & Veatch professionals proposed to be involved with this study.

Project Development Manager	John Wynne
Business Development Advisor	Howard Russell
Project Manager	Bob Slettehaugh
Financial Pro Forma Specialists	John Wynne Brad Kuschner
Siting Specialists	Dave Rensing Ryan Kerschen
Market Assessment Specialists	Natalie Rolph Tammy Wang
Coal Energy Technology Specialists	Bob Slettehaugh George Gruber Kim So Frank Peng
Environmental Specialists	Stan Rasmussen Kyle Lucas
Wind Energy Technology Specialist	Ryan Jacobson
Wind Energy Financial Specialist	Bill Stevens

John M. Wynne

Black & Veatch
Project Development Advisor / Pro Forma Specialist

Specialization: Project Development, Strategic Advising, Economic and Financial Evaluation, Regulatory Structure, Project Agreements, Pro Formas, Market Analysis

Background: Mr. Wynne created the Black & Veatch Project Development Advisory Services area in 1998 and is the service area leader for that effort. As an economist, he has also performed and directed numerous studies in the areas of system planning, economic, and financial analyses. He is the most experienced analyst with the company in the areas of pro forma analysis, international studies, and development of power purchase and other project agreements.

Mr. Wynne has also performed extensive analysis in the areas of production costing evaluations, risk assessments, development of capacity solicitations, and identification of sources of project financing.

Recent Project Experience:

Year	Project	Location	Position	Project No.
2000	McIntosh 4	Lakeland, Florida	Project Economist / Co-Manager	98151
2000	Western Farmers	Anadarko, Oklahoma	Project Development Advisor	97689
1999-2000	PEGI	Monterrey, Mexico	Project Economist / Project Manager	
1999	TUCC	Taiwan	Project Manager	
1999	Carolina Turkeys	Goldsboro, North Carolina	Project Development Advisor	
1998-1999	Bucharest Power and Heat Project	Romania	Market Assessment Leader	37597
1998	EGEM S.A.	Peru	Project Development Leader	60354
1998	ElectroPeru	Peru	Project Economist	59608
1997 - 1998	CEMEX TEG Project	Mexico	Project Economist	26804
1997 - 1998	Wisconsin Electric RFP	Wisconsin	Project Economist	

Qualifications:

Education: Bachelors, Economics, Northwest Missouri State University, 1983
Masters, Economics, Bowling Green State University, 1984

Professional Associations: Omicron Delta Epsilon

Year Joined Black & Veatch: 1990

Total Years of Experience: 15

Howard A. Russell

Black & Veatch
Business Development Advisor

Specialization: Business Development

Background: Mr. Russell is a General Partner and the Managing Director of the North Asia Region for this firm's Power Business. He is responsible for business development and client relations in Asia. Previously, he was Managing Director and Region Executive for the Asia-Pacific Region headquartered in Singapore.

Before joining Black & Veatch, Mr. Russell held numerous positions with General Electric. With extensive experience in power generation technologies, his background includes steam turbines, gas turbines, and nuclear steam supply system applications.

Qualifications:

Education: Bachelor of Science, Mechanical Engineering , University of Kansas, 1965

Professional Registration: Engineer (PE), Illinois, 1988

Professional Associations: American Society of Mechanical Engineers

Year Joined Black & Veatch: 1984

Total Years of Experience: 33

Language Capabilities: English

Robert A. Slettehaugh

Black & Veatch
Project Manager / Coal Technology Specialist

Specialization: Feasibility Studies, Conceptual Design, Technology Assessments, RAM Analysis

Background: Mr. Slettehaugh is the Technical Assessment Unit Leader in the Energy Services Division. He is responsible for management of up-front technical evaluation studies of power projects for energy companies, utilities, governmental agencies, industrials, and entrepreneurs.

Mr. Slettehaugh's recent assignments have focused on new coal projects in the US. He has also been supporting energy companies in their pursuit of merchant plant development and acquisition of existing assets. His efforts have been in the areas of configuration evaluation, conceptual design, and engineering to support permitting for merchant plant development. Mr. Slettehaugh has performed repowering studies for recently acquired assets. Mr. Slettehaugh also conducts evaluations of novel thermodynamic cycles and keeps abreast of advanced clean coal technologies.

Mr. Slettehaugh also has extensive experience in Reliability, Availability, and Maintainability (RAM) modeling using Monte Carlo and deterministic methods. He has led studies for combined cycle, cogeneration, coal, and nuclear power applications as well as several projects in the process industry. He is fluent in several RAM software packages.

Recent Project Experience:

Year	Project	Location	Position	Project No.
2001-Present	Technology Characterization	Eastern US	Study Manager	65377.0940
2001-Present	Technology Evaluation	Southeast, US	Study Manager	49552.0901
2000-Present	Combustion Turbine Site Expansion Study	Southwest, US	Project Manager	49858.0040
2000-Present	Technology Characterization	Midwest, US	Project Manager	99049.0010
2001	Coal Technology White Paper	Midwest, US	Consultant	65283.0010
2001	PC Unit Addition Fatal Flaw Analysis	Southwest, US	Consultant	65152.0010
2000	Technology Characterization	North Dakota	Project Manager	97269.0040
2000	Coal Site Fatal Flaw Analysis	Japan	Consultant	96806.0020
2000	Economic Comparison of Mine Mouth PC and Large Combined Cycle	Southwest, US	Study Manager	96758.0050

Qualifications

Education: BS, Mechanical Engineering, North Dakota State University, 1993
MS, Mechanical Engineering, North Dakota State University, 1996
MBA, University of Kansas, 1997 - Present

Professional Registration: Engineer (PE), Kansas, 1997

Professional Associations: American Society of Mechanical Engineers

Year Joined Black & Veatch: 1994

Total Years of Experience: 7

Bradley E. Kushner

Black & Veatch
Economic Specialist

Specialization: Economical Analysis, Mechanical Engineering

Background: Technical specialist in the Plant Services department of the Black & Veatch Power Business. Responsible for strategic modeling, and feasibility studies.

Project Experience:

2001		Orlando, Florida	Project Analysis Engineer
	Orlando Utilities Commission, Kissimmee Utility Authority, and Florida Municipal Power Agency		
Responsibilities:	Production costing and economic analysis to evaluate clients' most cost-effective expansion options to meet forecast capacity requirements. Also included preparation of corresponding application to be presented to the Florida Public Service Commission.		
2000			
	TXU		
Responsibilities:	Assisted in market forecast for MAIN and ECAR.		
2000 - Present		Lakeland, Florida	Project analysis Engineer
	Lakeland Electric and Florida Municipal Power Agency		
Responsibilities:	Production costing and economic analysis to evaluate clients' most cost-effective expansion options to meet forecast capacity requirements. Also includes preparation of corresponding application to be presented to the Florida Public Service Commission.		

Qualifications

Education: BS, Mechanical Engineering, University of Missouri, Columbia, MO, 2000

Year Joined Black & Veatch: 2000

David E. Rensing

Black & Veatch
Civil Engineer / Siting Specialist

Specialization: Site Development

Background: Mr. Rensing is a civil engineer assigned to the Energy Services Group. He is responsible for site selection and evaluation studies primarily associated with the development of electric power generation facilities and related linear facilities such as railroads, transmission lines, and pipelines.

Before joining Energy Services, Mr. Rensing served as a lead engineer responsible for civil engineering in major single- and multi-task projects. His responsibilities included coordination with Black & Veatch and client personnel, preparation of engineering estimates, planning and organization of project schedule compliance, and budget management. He has a wide range of experience in the design of sitework, buried utilities, dam inspections, hydrologic, and hydraulic engineering. His background includes extensive work with federal clients, including the Department of Defense and the Department of Energy.

Recent Project Experience:

Year	Project / *Client*	Location	Position	Project No.
2000-Present	New Power Generation Siting Services	Georgia	Siting Specialist	49430
2000- Present	Mid-Atlantic Siting Study	West Virginia & Virginia	Siting Specialist	99528
2000- Present	Site Selection Study	SPP Region	Siting Specialist	97574
2000	Siting Study	Georgia	Siting Specialist	97218
2000	Siting Studies	Kansas	Siting Specialist	99189
2000	Site Evaluation	Illinois	Site Engineer	98914
2000	Simple Cycle Siting Study	Georgia	Siting Specialist	97248
2000	Combined Cycle Siting Study	Georgia	Siting Specialist	97037
1999-2000	Siting Study		Siting Specialist	96136
1999-2000	Siting and Routing Studies		Siting Specialist	61894
1999	Permit Support		Siting Specialist	62954
2000	Siting Study	Southeast USA	Siting Specialist	97395

Qualifications:

Education: Bachelors, Civil, University of Illinois, 1975
Masters, Water Resources, University of Kansas, 1983

Professional Registration: Engineer (PE), Kansas, 1980

Professional Associations: American Society of Civil Engineers

Year Joined Black & Veatch: 1976

Total Years of Experience: 25

Ryan M. Kerschen

Black & Veatch
Siting Specialist

Specialization: Plant Siting, Strategic Assessments, Feasibility Studies, Technology Assessments/Characterizations, Renewable and Advanced Energy Technologies

Background: Mr. Kerschen has been responsible for providing study coordination and management and technical assistance on a wide range of projects. In the realm of power plant siting Mr. Kerschen has been active in traditional fossil fueled siting, including natural gas and coal (including derivatives), as well as more specialized siting initiatives such as brownfield siting and renewable technology siting. Additionally, Mr. Kerschen has participated in numerous feasibility studies in capacities ranging from technical support to study management. The studies have investigated traditional fossil applications, advanced/new technologies, and renewable and energy storage applications as well. Mr. Kerschen's educational background is in chemical engineering.

Recent Project Experience:

Year	Project / *Client*	Location	Position	Project No.
2001-Present	Site Ranking	Michigan	Study Manager	64873
	Consumers Energy			
Responsibilities:	Coordinating the siting effort to evaluate Consumer's existing sites for the potential of 1800 MW of additional pulverized coal fired capacity.			
2001-Present	Pulverized Coal Siting	North Eastern U.S.	Siting Specialist	49677
	Dominion Energy			
Responsibilities:	Assisting in the coordination of a large coal fired generation siting effort in the northeastern United States. Developing internal databases to compile data from each discipline and compiling that data into screenable deliverables. Also coordinating the digital presentation/mapping of the siting data.			
2001-Present	Inota Tires to Energy Project	Hungary	Technical Specialist	99767
	USTDA / Transelektro			
Responsibilities:	Assisting mainly with a review and evaluation of the potential of tire fueled pyrolysis option. Providing consultancy services to evaluate the suitability of various combustion, gasification, and pyrolysis processes for recovering energy from tires. Cost, performance, emissions, operational attributes, and other features will be characterized.			
2000	Technology Characterization	United States	Study Manager	
	Western Resources Technology Characterization			
Responsibilities:	Coordinated a feasibility study comparing potential candidate technologies for a capacity additions in the midwest. Simple and combined cycle gas combustion turbines and pulverized coal options were reviewed. The study included capital cost estimates, performance reviews, projected schedules, and cash flow estimates.			

Natalie Rolph

Black & Veatch
Chief Economist

Specialization: Strategic Planning for the Electric Power Industry

Background: Ms. Rolph is Chief Economist and Project Manager within the Energy Services Division of Black & Veatch. She is responsible for regional electric system modeling, forward price curve forecasting, asset valuation, and economic feasibility studies. Her clients include energy companies, public and investor-owned utilities, independent power companies, and government agencies. She also oversees the development of economic models to support electric master planning for large users such as industrial complexes, wastewater districts, and universities.

Recent Project Experience:

Year	Project / *Client*	Location	Position	Project No.
2000	New Generation Plan and NOx Compliance	Richmond, Indiana	Project Manager	
2000	Asset Acquisition Study	Overland Park, KS	Market Assessment Manager	
2000	Peaking Portfolio Services	Upper Midwest	Project Manager	
2000	Expert Testimony	Joplin, MO	Project Manager	
2000	Expert Testimony	Overland Park, KS	Project Manager	
1999-Ongoing	Cogeneration Feasibility	Wichita, KS	Senior Economist	
1998-Ongoing	Private Power Feasibility	Oklahoma	Project Manager	
1997-Ongoing	300 MW Combined Cycle Expansion Feasibility	Joplin, Missouri	Project Manager	
1998-Ongoing	300 MW Cogeneration Feasibility	Bakersfield, California	Study Manager	
1998	Natural Gas Repowering Feasibility	Ohio	Project Manager	
1998	US Electric Market Analysis	Los Angeles, California	Study Manager	
1998	Stranded Asset Study	Missouri	Project Manager	
1997	Due Diligence Project	Florida	Project Economist	
1997	State-wide Restructuring Impacts	State of Wyoming	Study Advisor	

Qualifications:

Education: Bachelors, Economics, University of Kansas, 1974
Masters, Economics, University of Missouri at KC, 1978

Year Joined Black & Veatch: 1977

Total Years of Experience: 25

Tammy T. Wang

Black & Veatch
Management Analyst

Specialization: Financial and Economic Studies; Electric Power supply resource and demand Analysis; Transmission tariffs and reliability studies; Decision and Risk Analysis.

Background: Ms. Wang is a management analyst of Strategic Planning in the Power Sector Advisory Services Section of the Black & Veatch Power Business. She is responsible for financial and economic analysis, power market analysis, risk assessment, strategic planning modeling and analysis.

Ms. Wang worked for General Electric Power Systems and Black & Veatch in China office for four years, where she obtained a wide range of experience on international power market and international power project execution.

Recent Project Experience:

Year	Project / *Client*	Location	Position	Project No.
2000	Stanton Energy Center (Unit 3) Certified Site	Orange County, Florida	Socioeconomist	98362
2000	Cane Island 4 Certified Site	Osceola County, Florida	Socioeconomist	98362
2000	Summer Risk Assessment	Joplin, Missouri	Project Analyst	98165
2000	TEA Market and Transmission Study		Project Analyst	97952
2000	New Smyrna FPPCF Review	New Smyrna Beach, Florida	Project Analyst	98656
1999-2000	South Africa FBC Study	South Africa	Project Analyst	62949
2000	Grassy Point Energy Project	Haverstraw,New York	Socioeconomist	60655
1999	ECAR/Ohio Sitting Study	Knox County, Ohio	Project Analyst	96674
1999	N. American Power Market Benchmark	Kansas City, Missouri	Project Analyst	9378
1999	Electric Market Study for Hanwa CC Plant	South Korea	Project Analyst	97335
1999	Dominion Sitting Project	ECAR Region	Project Analyst	96136
1999	MBA Graduation Practicum Project	Wichita, Kansas		

Qualifications:

Education: BA, English/Economics(minor), ShanDong University (China), 1993
M.B.A., (Finance), Kansas State University, 1999

Year Joined Black & Veatch: 1995 (two years); Rejoined 1999

Total Years of Experience: 7

George P. Gruber

Black & Veatch
Principal Process Engineer

Specialization: Process Engineering / Independent Engineering, Integrated Gasification Combined Cycle Power Generation Gasification, Gas Processing, Power Generation

Background: As a process engineer in Black & Veatch Corporation's Energy Services Group, Mr. Gruber's responsibilities include consulting and serving as a technical resource for gasification, IGCC, gas processing, and power generation. Mr. Gruber provides process engineering for design of new facilities, evaluation of power generation technology, and assessment of existing facilities. Mr. Gruber also provides independent engineering for bank and owner project oversight. Mr. Gruber's Black & Veatch experience includes Lead Process Engineer in the Process Division.

Recent Project Experience:

Year	Project / *Client*	Location	Position	Project No.
1999	LARC Cogen	Los Angeles, California	Lead Process Engineer	64233
1997-2000	Coke Gasification to Ammonia	Coffeyville, Kansas	Lead Process Engineer	58173
1996-2000	Sarlux IGCC	Sardinia, Italy	Lead Process Engineer	26689
1996-1997	Asab FEED	United Arab Emirates	Lead Process Engineer	28658
1995	Bellefonte Nuclear Plant	Alabama	Lead Process Engineer	27844
1995	Carbon County	Wyoming	Lead Process Engineer	27248
1995	Solid Fuel Electric Generating Plant Study	Missouri	Lead Process Engineer	27084
1994	Great Plains Synfuels Debottlenecking Study	North Dakota	Lead Process Engineer	25560/26260
1994	IGCC Coproduction Study	Alabama	Lead Process Engineer	25177
1994	Lignite Based IGCC Study	North Dakota	Lead Process Engineer	25035
1993 - 1994	Kahe Station IGCC Study	Hawaii	Lead Process Engineer	23581
1992 - 1993	IGCC Coproduction Study	Mississippi	Lead Process Engineer	23500

Qualifications:

Education: Bachelors, Chemical Engineering, University of Colorado at Boulder, 1974

Professional Registration: Engineer (PE), Colorado, 1982

Professional Associations: American Chemical Society
American Institute of Chemical Engineers
Instrument Society of America
National Association of Corrosion Engineers

Year Joined Black & Veatch: 1991

Total Years of Experience: 26

Kim S. So

Black & Veatch
Mechanical Engineer

Specialization: Feasibility Studies, Technology Assessment, Renewable Energy, Landfill Gas Utilization

Background: Mr. So is responsible for providing technical assistance on power projects for the energy companies, utilities, governmental agencies, industrials, and entrepreneurs. In addition to participating in feasibility studies of conventional technology, Mr. So is also active in assessments of advanced and renewable energy technologies. Applications that have been recently assessed include wood waste and agricultural waste combustion, and landfill gas utilization projects.

Mr. So has background in mechanical engineering and economics with graduate-level specialization in techno-economic analyses of ethanol production from biomass using hybrid thermal / biological conversion technology.

Recent Project Experience:

Year	Project / *Client*	Location	Position	Project No.
2000 - ongoing	JEA Need for Power	Jacksonville, Florida	Mechanical Engineer	97990.0040
1999 - ongoing	IRP – 99 Supply-Side Resource Option Portfolio Development	Hawaii	Mechanical Engineer	39416.0040
2000	Energy Price Forecasts	Baltimore, Maryland	Mechanical Engineer / Statistician / Economist	99828.0020
2000	Reliant Hope RIRRC Landfill Gas Evaluation (LFG)	Rhode Island	Mechanical Engineer	98704.0040
2000	KUA Ten Year Site Plan	Kissimmee, Florida	Mechanical Engineer	97528.0010
2000	JEA Ten Year Site Plan	Jacksonville, Florida	Mechanical Engineer	96999.0011
1999	JEA Wood Waste-Fired Power Plant Feasibility Study	Jacksonville, Florida	Study Engineer	61972.0040
1999	Biomass Feasibility Study	Thailand	Mechanical Engineer	39604.0040

Qualifications:

Education: B.Sc., Chemical Engineering and Economics, Iowa State University, 1995
M.Sc., Mechanical Engineering and Economics, Iowa State University, 1998

Professional Registration: Engineer-in-Training, Iowa, 1994

Year Joined Black & Veatch: 1999

Total Years of Experience: 4

Stanley L. Rasmussen

Black & Veatch
Senior Environmental Attorney

Specialization: Environmental Law and Licensing and Environmental Issues

Background: Mr. Rasmussen is an attorney assigned to the Environmental Licensing Unit in the Environmental and Licensing Services Section. Mr. Rasmussen provides interpretation and consultation concerning federal, state, and local statutes; regulations and ordinances affecting the siting, design, construction, and operation of industrial electrical generating facilities. In addition, he manages and coordinates licensing and permitting activities for power generation and industrial clients throughout the world.

Recent Project Experience:

Year	Project / *Client*	Location	Position	Project No.
2001	Multi-State Coal Plant Permitting	Confidential	Environmental Project Manager	
2001	1,500 MW Coal Plant Permitting	Kentucky	Environmental Project Manager	
2000	Simple-Cycle Due Diligence	Oklahoma	Environmental Manager	
2000	Environmental Review	Virginia	Environmental Manager	
2000-2001	1,200 Combined -Cycle Permitting	New York	Permitting Manager	
2000	Environmental Review	Texas	Environmental Manager	
2000	Two 500 MW Combined-Cycle Plants Permitting	Texas	Permitting Manager	
1999-2000	Research and Training in Worker's Safety	Nationwide	Director of Education and Research	
1988-1999	827 MW Combined-Cycle Environmental Permitting	New York	Permitting Manager	

Qualifications:

Education:
Bachelors, Politics/Government, University of Kansas, 1984
Juris Doctor, Environmental Law, University of Denver School of Law, 1987

Professional Registration:
Attorney at Law, Colorado, 1987
Attorney at Law, Kansas, 1988
Attorney at Law, Missouri, 1989
Registered Environmental Manager, October 1997
Certified Environmental Auditor, October 1997

Professional Associations:
Kansas Bar Association
Missouri Bar Association

Year Joined Black & Veatch: 1990

Total Years of Experience: 14

Kyle J. Lucas

Black & Veatch
Air Quality Scientist

Specialization: Air Dispersion Modeling, Air Emissions Inventory Preparation, Cooling Tower Assessments, Odor Dispersion Modeling, Visibility Assessments, Meteorological and Climatological Studies, PSD Air Permit Applications, Title V Permit Application Preparation, Cavity and Recirculation Analyses, Class I Regional Haze Analyses

Background: Mr. Lucas is an air quality scientist assigned to the Air Quality Unit of Air Quality Unit of the Environmental Health and Safety Section in the Energy Services Division. His primary responsibilities include air quality permitting and licensing, preparation of atmospheric dispersion modeling studies and analyses which support other air permitting and licensing efforts.
Mr. Lucas' assignments require the use of various computer air dispersion models to predict environmental impacts associated with stack gas, cooling towers, and fugitive emissions. His duties include the interaction with local, state, and federal regulatory agencies, emission inventory compilation, air quality impact analyses, and the preparation of climatological reports and meteorological studies used in the construction and engineering design. He has performed air quality dispersion modeling analyses and prepared PSD permit applications for industrial facilities and combined and simple cycle combustion turbine electric generating facilities located around the country. Most recently, Mr. Lucas's assignments include the preparation of PSD permit applications for combined and simple cycle power in Alabama, Florida, and Illinois and coal-fired power in New Mexico and Illinois.

Project Experience:

Year	Project / *Client*	Location	Position	Project No.
2001 – Present	South Hospah	Hospah, New Mexico	Air Quality Scientist IV	
2001 – Present	Star Lake	Star Lake, New Mexico	Air Quality Scientist IV	
2001 – Present	Kaskaskia Generating Station	Marissa, Kentucky	Air Quality Scientist IV	
2001 – Present	Thoroughbred Generating Station	Central City, Kentucky	Air Quality Scientist IV	
2000 – Present	Elwood Energy III Facility	Elwood, Illinois	Air Quality Scientist III	
2000 – Present	Lincoln Generation Facility	Kincaid, Illinois	Air Quality Scientist III	
2000	Grassy Point Facility	New York	Air Quality Scientist III	
2000	Multistate Siting Study for 500 to 1,000 MW Capacity	Various	Air Quality Scientist III	
2000	Springdale Township Station	Pittsburgh, Pennsylvania	Air Quality Scientist III	

Qualifications:

Education: B.S., Atmospheric Science, University of Kansas, 1993

Professional Associations: American Meteorological Society
Air and Waste Management Association

Year Joined Black & Veatch: 1994

Total Years of Experience: 12

Ryan J. Jacobson

Black & Veatch
Wind Energy Consultant / Electrical Engineer

Specialization: Wind Energy, Renewable Energy, Field Testing, Interconnection Analysis.

Background: Mr. Jacobson worked for over four years in the wind power industry prior to coming to Black & Veatch. He specialized in the design review and testing of electrical components of wind turbines, as well as the development and implementation of testing methods.

Recent Project Experience:

Year	Project / *Client*	Location	Position	Project No.
2001 - Present	Trans-America Generation Grid (TAGG)	United States	Wind Energy Specialist	
2001 - Present	Wind Development Siting	Northwest US	Wind Energy Specialist	69605
2001 - Present	Wind Development Appraisal	Palmdale, California	Wind Energy Evaluator	64928
2001	Interconnect Request Preperation	Ohio	Electrical Engineer	66860
2001	Wind Development Appraisal	Midwestern United States	Wind Energy Evaluator	65538
2001	Mozambique Electricity Master Plan Study	Mozambique, Africa	Study Coordinator	005552
2001	China Wind Power Development Project	China	Proposal Coordinator	005576
2000 - Present	Stalowa Wola CHP Rehabilitation Study	Stalowa Wola, Poland	Study Coordinator	005470
2000 - Present	Inota Renewable Energy Project Feasibility Study	Varpalota, Hungary	Study Coordinator	005303
2000	Renewable Energy Power Supply Study	San Quintin, Mexico	Project Engineer	97063
2000	Renewable Technology Characterization	Kansas	Project Engineer	99049
1996-2000	National Renewable Energy Lab, US DOE	Golden, Colorado	Test Engineer	

Qualifications:

Education: B.S., Electrical Engineering, University of Colorado - Boulder, 1996
M.S., Electrical Engineering, University of Colorado – Boulder, 1998

Professional Registration: Professional Engineer, Colorado (2000)

Professional Associations: Institute of Electrical and Electronic Engineers

Year Joined Black & Veatch: 2000

Total Years of Experience: 5

William M. Stevens

Black & Veatch
Manager, Project Finance

Specialization: Project Finance

Background: Bill Stevens is a Manager in the Black & Veatch Project Finance Team with over 7 years of experience in international transactions. He is actively involved in the arranging and structuring of limited recourse debt and equity for power and oil and gas transactions around the world.

Mr. Stevens is responsible for both domestic and international project finance activities. These responsibilities include generating financing proposals in support of Black & Veatch EPC bids, closing financial transactions in cooperation with project developers, and negotiating payment terms and conditions for EPC contracts. He has extensive experience in dealing with various financing organizations including Commercial Banks, Export Credit Agencies, Multilateral Banks, and Trading Companies, particularly in the Asian region.

Selected Project Experience is summarized below.

Recent Project Experience:

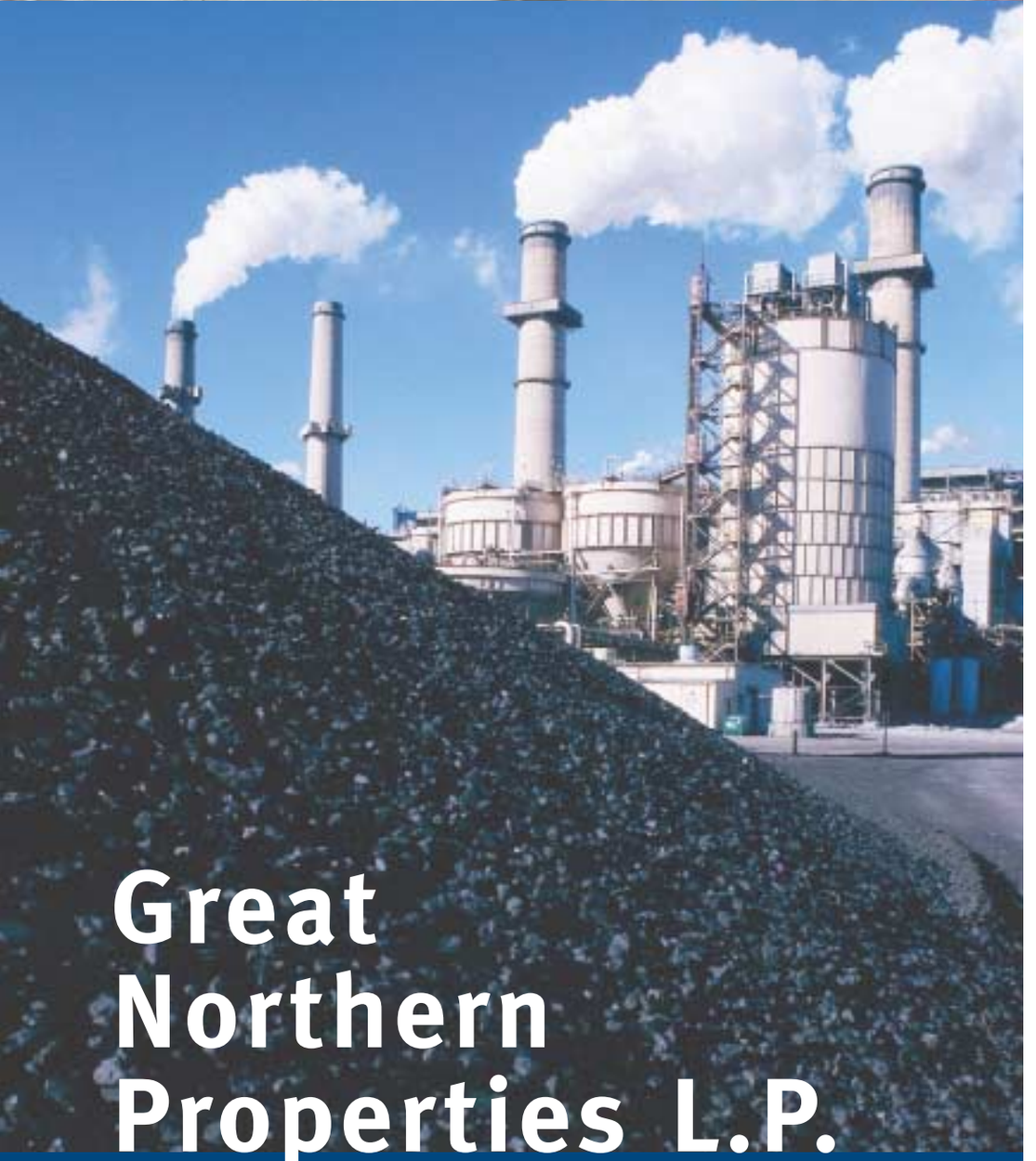
Year	Project / *Client*	Location	Position
1999 – Present	150MW Co-Generation Plant Development	Eastern Europe	Manager, Project Finance
1999 - Present	95MW Co-Generation Plant Development	Taiwan	Manager, Project Finance
1999	Storm Lake I, 150 Turbine Wind Farm	Storm Lake, Iowa	Sr. Financial Analyst
1999	Storm Lake II, 107 Turbine Wind Farm	Storm Lake, Iowa	Sr. Financial Analyst
1998	Cabazon, 53 Turbine Wind Farm	Palm Springs, CA	Sr. Financial Analyst
1998	Lake Benton I, 143 Turbine Wind Farm	Lake Benton, Minnesota	Sr. Financial Analyst
1997	Batu Hijau, $1.8Bn Greenfield Copper Mine	Lombok, Indonesia	Vice President
1997	PT Kaltim Pacifik Ammoniak, $230M Ammonia Plant	Indonesia	Vice President

Qualifications:

Education: A.A., New Mexico Military Institute, 1985
B.A., Asian Studies, University of California at Santa Barbara, 1987

Year Joined Black & Veatch: 1999

Total Years of Experience: 9



Great Northern Properties L.P.

COMPETITIVE COAL DEVELOPMENT PROJECTS

Great Northern Properties L.P.

COMPETITIVE COAL DEVELOPMENT PROJECTS

Great Northern Properties L.P. (GNP) controls more than 60 surface-mineable coal and lignite deposits in Montana and North Dakota that are available for development. Mine development economics, fluctuating natural gas prices, shrinking reserve margins, and power market conditions suggest that many of these deposits are suitable for near-term development. Following decades of inactivity by the former railroad owner of these deposits, GNP is pursuing its options for development and participation in mining and power project ventures on its lands.

Great Northern Properties L.P.

GNP is a limited partnership controlled by the principals of Quintana Minerals Corp. of Houston, Texas – an entity with a long history of major energy-related investments and project finance. A minority interest in GNP is controlled by American Bailey. GNP and its sister company, Western Pocahontas Properties L.P. (WPP) were organized to manage and develop coal reserves on former railroad lands acquired from the BNSF and CSX railroads, respectively. Together, these mineral lands constitute the largest fee coal land holdings in the United States. GNP and WPP derive income from the development of their respective coal land interests and, as such, do not take an active role in operations.

Background

Great Northern Properties L.P. controls the mineral rights to former Northern Pacific Railroad "checkerboard" land grant lands in Montana and North Dakota within the Northern PRB and Northern Lignite coal fields, respectively. These lands contain more than 20 billion tons of coal and lignite and are comprised of nearly 5 million acres of mineral rights and more than 200,000 acres of associated surface lands. GNP's coal lands are generally located on odd numbered sections within a 120 mile wide belt straddling the BNSF main line between Bismarck, ND and Billings, MT. GNP also controls coal land in Washington and illinois.

These lands were held by various railroad interests until late 1992 when they were acquired by GNP. Although development of these deposits was hindered by federal legislation limiting the involvement of railroads in coal mines along their trackage, many deposits were leased and explored by major energy companies – particularly during the energy crises of the late 1970's and early 1980's for on-site gasification projects. However, since that time, there has been little effort to promote the development of mines on these deposits. It is only recently that GNP has inventoried the reserves on its lands, evaluated emerging market developments, and begun to actively market its coal and lignite deposits.

MAJOR HOLDERS OF U.S. COAL RESERVES

In billions of short tons

Only the U.S. Government controls more coal reserves than Great Northern Properties L.P., holding 91.7 billion short tons, or about one-third of the nation's total estimated reserves.

MINNESOTA HISTORICAL SOCIETY

GNP has competitive coal and lignite reserves available for development

- Low-Cost, Large Surface-Mineable Coal Reserves in Montana & North Dakota
- Location Within MAPP and WSCC Near Existing Transmission Lines
- Mine-Mouth Coal Costs Competitive with Gas-Fired Base-Load Generation
- Poised to Take Advantage of Utility Deregulation, Nuclear Retirements and Shrinking Reserve Margins
- Positive Local Political and Environmental Conditions
- Interest in Partnering on Mine-Mouth Power Projects
- Proven Track Record of Financing and Investing in Major Energy Projects

Five mines developed on GNP's properties in Montana, Illinois, and Washington collectively produce as much as 25 million tons of coal per year.

GNP's Coal Deposits

GNP's coal deposits are located in the Northern PRB coal fields generally along the Tongue River – a tributary of the Yellowstone River in southeastern Montana. Two mines, Rosebud (Western Energy) and Big Sky (Peabody) that collectively produce between 14 and 17 million tons of sub-bituminous coal per year, are developed on some of these lands.

GNP's undeveloped Otter Creek Deposit is expected to be the focal point for the next generation of major PRB mines – once a railroad is extended 45-90 miles into the region from nearby BNSF trackage. The deposit consists of 2.6 billion tons of coal at a 3:1 overburden-to-coal ratio for a coal seam averaging 70 feet thick, 8,750 Btu, and 0.45 SO2. A feasibility study for GNP's Otter Creek Deposit is available for review. GNP lessees in the area have proposed the construction of the Tongue River Railroad to develop a portion of these reserves.

Otter Creek Reserves

	AREA A		AREA B		AREA C		TOTAL	
CATEGORY	TONS (MMT)	RATIO	TONS (MMT)	RATIO	TONS (MMT)	RATIO	TONS (MMT)	RATIO
Incremental Basis								
2:1 ratio	185	1.90	195	1.80	57	1.80	436	1.84
3:1 ratio	392	2.64	542	2.75	152	2.76	1,087	2.71
4:1 ratio	230	3.80	321	3.82	278	3.73	829	3.78
5:1 ratio	68	4.09	108	3.98	113	4.79	288	4.33
Totals	874	2.90	1,166	3.00	600	3.50	2,641	3.08
Cumulative Basis								
2:1 ratio	185	1.90	195	1.80	57	1.80	436	1.84
3:1 ratio	577	2.40	737	2.50	209	2.50	1,523	2.46
4:1 ratio	806	2.80	1,059	2.90	487	3.20	2,352	2.93
5:1 ratio	874	2.90	1,166	3.00	600	3.50	2,641	3.08

GNP's Lignite Deposits

GNP's lignite deposits are located in Eastern Montana and Western North Dakota. Recent studies indicate that these deposits have substantial development potential to fuel new mine-mouth power projects in MAPP – particularly those deposits located near existing transmission lines. Independent mine cost studies indicate favorable and competitive mine development economics for several of GNP's lignite reserves – typically in the 50¢-60¢/mmBtu range. These deposits generally exceed 200 million tons, with seams 10-30 feet thick at 3:1-10:1 ratios, 6,000-7,000 Btu, and 2-4 SO2.

Transmission

GNP's coal deposits are located within the MAPP and WSCC regions in areas traversed by 230, 345, and 500 KV transmission lines – mostly controlled by WAPA. Several of these deposits are located within 5 miles of existing transmission lines with some located near or at the intersection of existing transmission lines. Given the costs and environmental challenges of permitting new transmission lines, such locations have potentially favorable consequences for mine-mouth development to utilize unused transmission capacity or upgrade these lines to accommodate additional generation. The State of North Dakota has funded two major studies to address transmission issues for developing the next generation of lignite-fired power plants within MAPP.

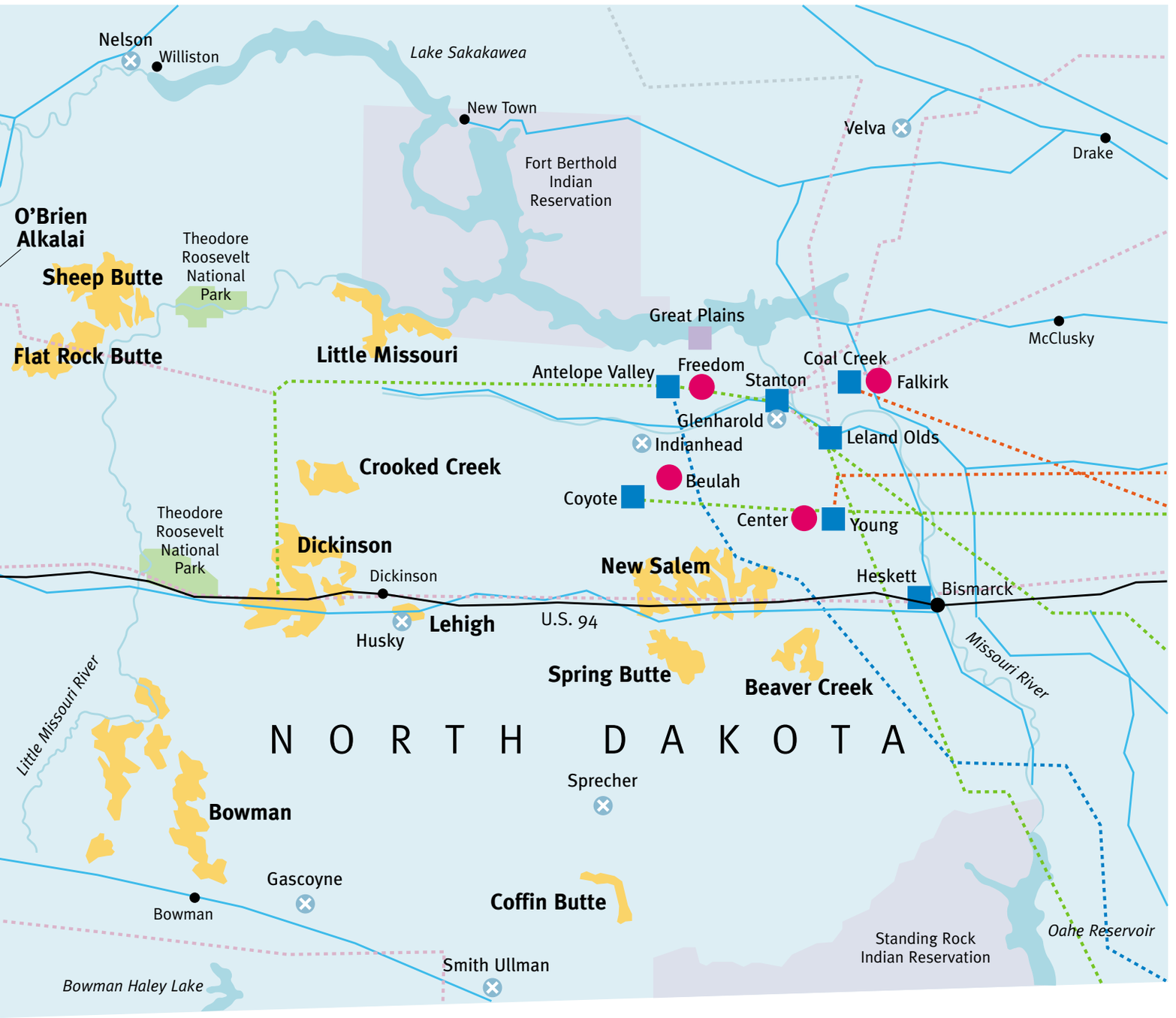
Mine-Mouth Power Plants

Utility deregulation has lifted the constraint to construct coal-fired power plants within the service territories of utilities – generally at sites far removed from the coal fields. The industry is now poised to take advantage of the economic advantages of mine-mouth generation by virtue of ISOs, RTOs, and deregulated transmission – rather than being held hostage to consolidating railroad interests, fuel delivery disruptions, rail rate fluctuations, and the like. As a consequence, many of the next generation of coal-fired power plants are likely to be constructed in mine-mouth situations.

Shrinking reserve margins, accelerated by the retirement of aging nuclear plants, in a deregulating utility environment encourage the development of new power plants within the MAPP and WSCC regions – particularly along existing transmission line corridors. Recent studies commissioned by the Lignite Energy Council of North Dakota with ABB, B&W, and RDI indicate a positive technical, environmental, and economic climate for mine-mouth, coal-fired generation and the absence of "fatal flaws" that would otherwise circumvent the development of such projects within MAPP. In addition, the State of North Dakota has made available $10 million for matching funds to facilitate the construction of additional lignite-fired power plants within MAPP.

LOCATION MAP OF GNP COAL & LIGNITE RESERVES

GNP's "checkerboard" of lands are generally located within a 120-mile-wide band straddling the BNSF main line from Bismarck to Billings.



Key

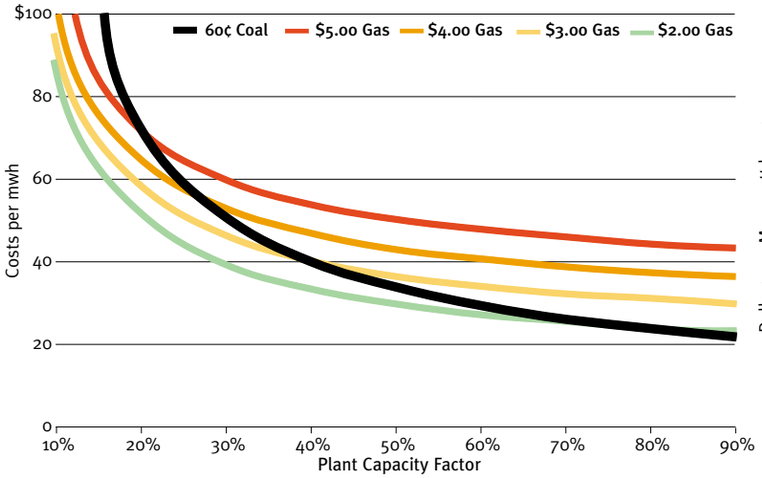
- GNP Lignite Deposit
- GNP Coal Deposit
- Lignite- or Coal-Fired Power Plant
- Coal Gasification Complex
- Active Lignite or Coal Mine
- Closed Lignite Mine
- City/Town
- National Park
- Indian Reservation
- Railroad
- Interstate highway
- River

Primary Transmission Lines:

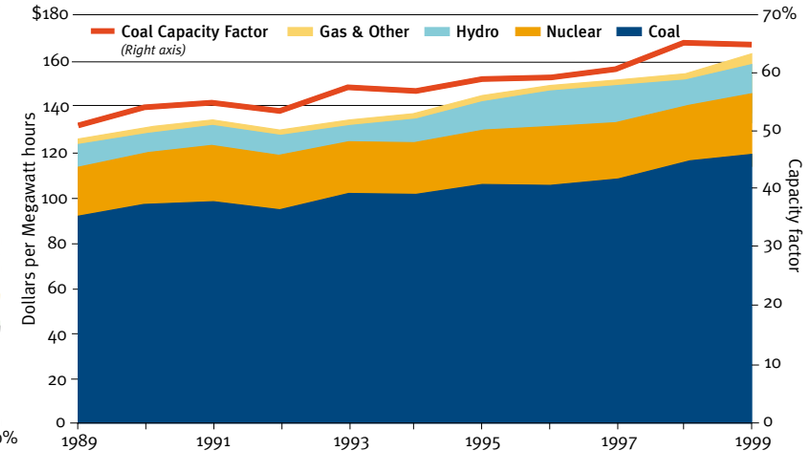
- 230 KV
- 345 KV
- 500 KV
- DC Line

GNP's coal deposits are competitive with natural gas for base-load mine-mouth power generation.

COAL VS. GAS



MAPP Generation Is Dominated By Coal



Coal vs. Gas-Fired Generation

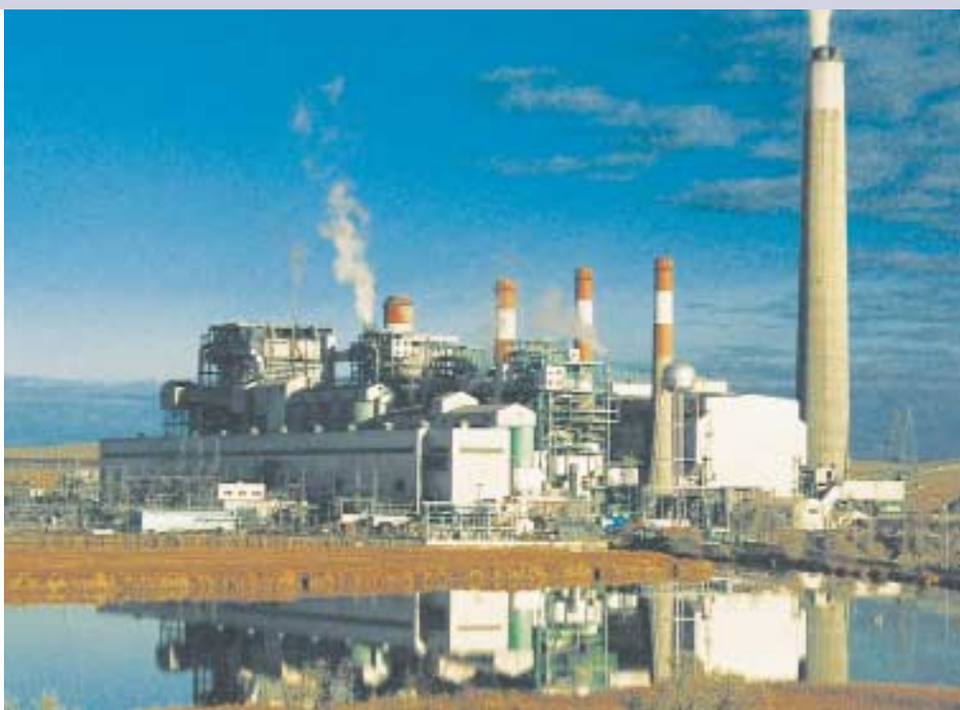
Although many new and proposed power projects contemplate gas-fired systems to meet peak power demand, the economics for coal-fired generation within MAPP and WSCC are favorable for base-load generation – particularly in light of fluctuating and uneconomic natural gas prices. As evidenced by the recent resurgence in new coal-fired power plant construction and announced projects, coal-fired generation is competitive in current and emerging power markets.

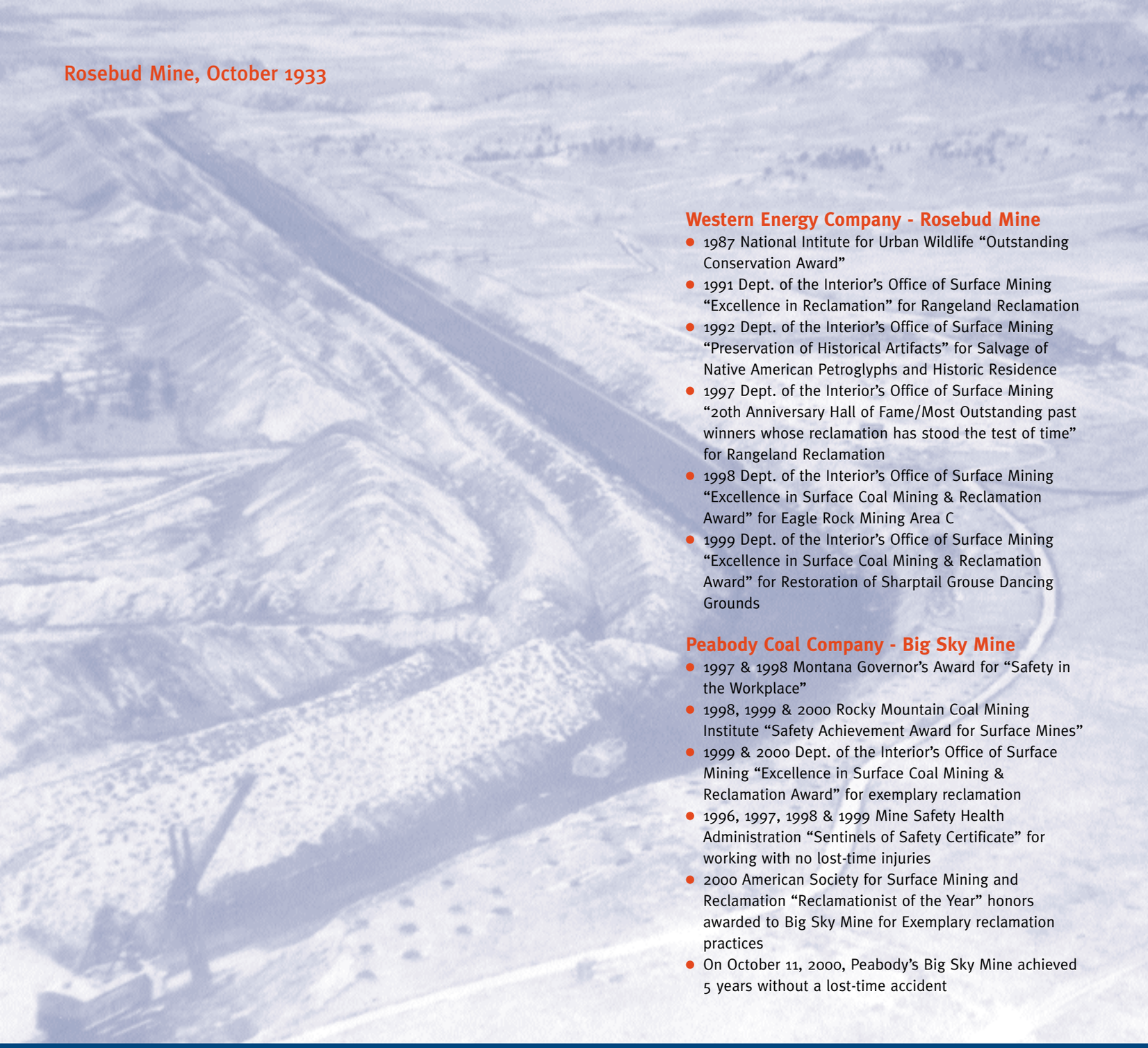
GNP's coal and lignite deposits are suitable for new mine-mouth plants

- $1,000-$1,200/KW Installed Generation Capacity for Pulverized Coal and CFB Power Plants That Meet Stringent Air Quality Standards – Either Wet or Dry
- Stable Life-of-Plant Fuel Costs of <$7/MWH at 10,000 Btu/KW Heat Rates
- Availability of Surplus Transmission Capacity and Nearby 230-345 KV Transmission Lines That Could be Upgraded to 500 KV
- All-in Project Economics of $24-$27/MWH Inclusive of Capital Costs, With Incremental Power Production Costs of <$10/MWH
- Advocacy and Support of the State of North Dakota to Construct Mine-Mouth Lignite-Fired Power Plants Within MAPP

GNP Project Participation

The financing of power plant projects has become more risky with the emergence of independent power project (IPP) developers in a deregulating utility environment. In recognition of these risks, GNP contemplates participation in IPPs that are developed on its coal deposits wherein the coal is supplied to the plant at cost and proceeds of the entire project are shared between project participants – or other innovative approaches to facilitate the development of its coal deposits. However, GNP is also amenable to more conventional project development approaches including the outright lease of its coal deposits to mining companies or independent project developers.





Rosebud Mine, October 1933

Western Energy Company - Rosebud Mine

- 1987 National Intitute for Urban Wildlife “Outstanding Conservation Award”
- 1991 Dept. of the Interior’s Office of Surface Mining “Excellence in Reclamation” for Rangeland Reclamation
- 1992 Dept. of the Interior’s Office of Surface Mining “Preservation of Historical Artifacts” for Salvage of Native American Petroglyphs and Historic Residence
- 1997 Dept. of the Interior’s Office of Surface Mining “20th Anniversary Hall of Fame/Most Outstanding past winners whose reclamation has stood the test of time” for Rangeland Reclamation
- 1998 Dept. of the Interior’s Office of Surface Mining “Excellence in Surface Coal Mining & Reclamation Award” for Eagle Rock Mining Area C
- 1999 Dept. of the Interior’s Office of Surface Mining “Excellence in Surface Coal Mining & Reclamation Award” for Restoration of Sharptail Grouse Dancing Grounds

Peabody Coal Company - Big Sky Mine

- 1997 & 1998 Montana Governor’s Award for “Safety in the Workplace”
- 1998, 1999 & 2000 Rocky Mountain Coal Mining Institute “Safety Achievement Award for Surface Mines”
- 1999 & 2000 Dept. of the Interior’s Office of Surface Mining “Excellence in Surface Coal Mining & Reclamation Award” for exemplary reclamation
- 1996, 1997, 1998 & 1999 Mine Safety Health Administration “Sentinels of Safety Certificate” for working with no lost-time injuries
- 2000 American Society for Surface Mining and Reclamation “Reclamationist of the Year” honors awarded to Big Sky Mine for Exemplary reclamation practices
- On October 11, 2000, Peabody’s Big Sky Mine achieved 5 years without a lost-time accident

Contact Information

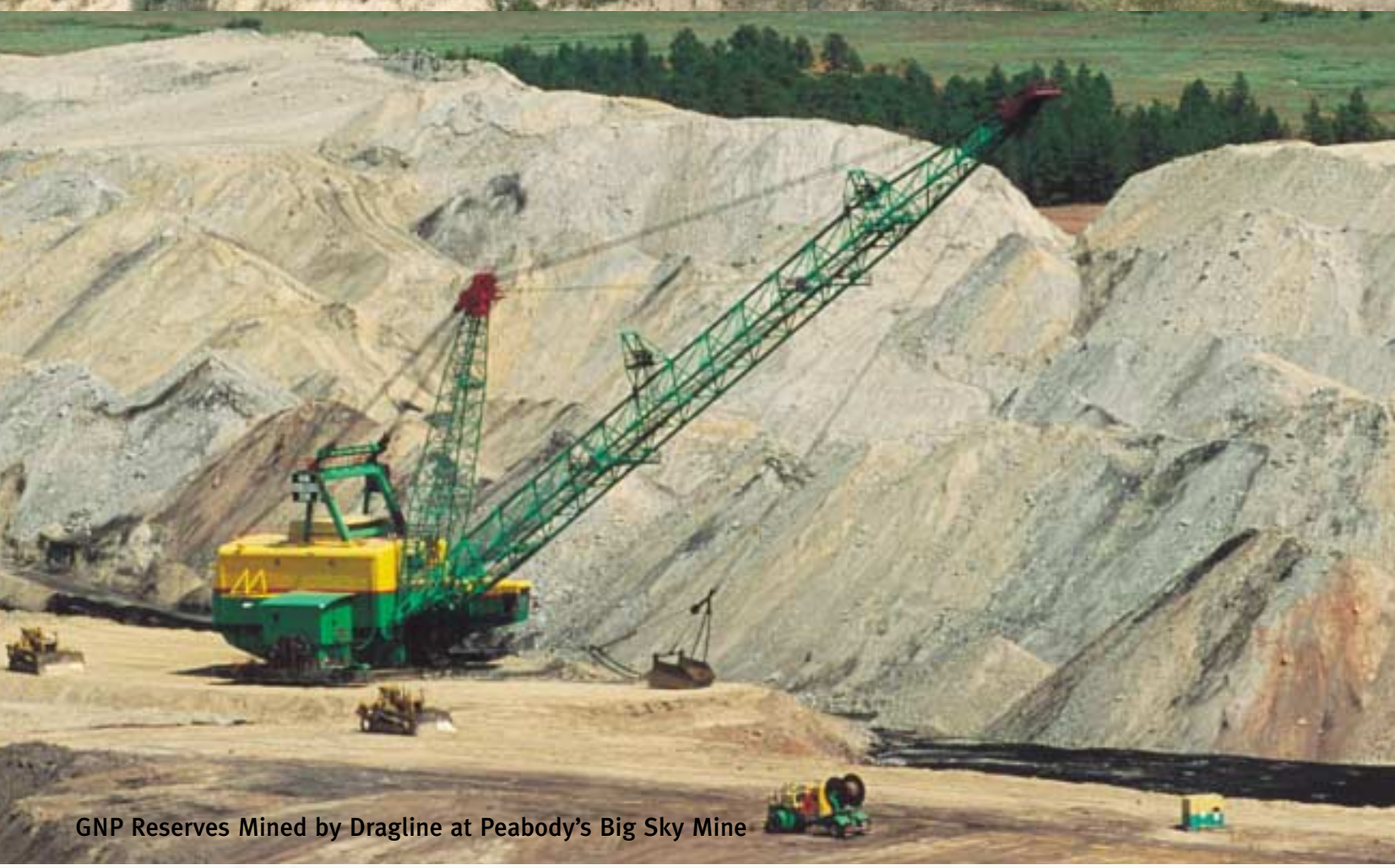
Great Northern Properties L.P.
1658 Cole Boulevard, Suite 260
Golden, CO 80401
Phone (303) 235-8242 Fax (303) 235-8244
Located in the Denver West Office Park on I-70
(Exit 263 Denver West Blvd.)

Active Industry Leader

GNP maintains memberships with and is active in the following organizations that promote the maintenance and development of coal-fired generation:

- National Mining Association (NMA)
- Center for Energy and Economic Development (CEED)
- Partnership for Affordable Energy (PAE)
- Americans for Balanced Energy Choices (ABEC)
- Western Coal Transportation Association (WCTA)
- Western Coal Council (WCC)
- Lignite Energy Council of North Dakota
- Montana Mining Association
- Mississippi Valley Coal Trade and Transport Council
- Rocky Mountain Coal Mining Institute

Peabody's Big Sky Mine Rail Loadout with BNSF Unit Train



GNP Reserves Mined by Dragline at Peabody's Big Sky Mine

TransAlta's Centralia Mine and Mine-Mouth Plant

BENTON T. KELLY Appendix E

4441 Jenning Drive
Plano, TX 75093-5547
Email: somba1@airmail.net

Business: (972) 867-3190
Home: (972) 964-2646
Cell: (214) 477-9910

ENGINEERING / BUSINESS DEVELOPMENT MANAGER

Proven Technical & Management Expertise in a Career Spanning 25+ Years

Technically sophisticated and business-savvy management professional with a solid career reflecting strong leadership qualifications coupled with "hands-on" engineering expertise. Exceptional customer relationship and management skills; relate and interface easily at the top executive levels. Keen, in-depth understanding of project economic analysis methods and techniques. Solid background and qualifications in all core business functions – engineering, operations, marketing, and finance.

Areas of Expertise

Economic Feasibility Studies	Business Development & Negotiations
Cost Estimating	Risk Analysis
Operations Budgeting	Problem Solving
Large-Scale Project Management	Strategic Planning
Capital Expenditure Planning	Computer Programming

PROFESSIONAL EXPERIENCE

2001 – Present **Kelly Energy Fuels Services** – Plano, Texas

President

Consulting company for the mining and coal fired power generation industries. Consulting services include the following:

- Conceptual mine plan for a quick evaluation of a coal project;
- Detailed mine plan which includes the mining sequence, equipment selection, manpower requirements, and cost estimates;
- Coal quality impacts on generation costs;
- Capital and operating cost estimate;
- Financial evaluation and Due Diligence reviews;
- Complete report preparation for financing purposes;
- Mine efficiency review;
- Fuel supply studies;
- Custom mining software development;
- Support for dispute resolution.

1980 – 2001 **PHILLIPS COAL COMPANY** - Richardson, Texas

Director, Project Engineering

Plan, initiate and direct the assessment, evaluation, and mine planning of all Phillips Coal Company (PCC) properties, which would lead to the sale and development of coal. Conduct economic analysis of development projects and existing mine expansions to determine methods to optimize return-on-investment. Develop economic evaluation and impact of customer requests, during coal sales contract negotiations. Develop and maintain mine-planning standards, current costs and industry operating methodology for PCC and joint venture/partnership operating mines. Develop and direct development of equipment and operational plans for new mine development and existing mine renovation or expansion. Joint evaluation with PCC management of coal property acquisition, trade and joint venture participation. Initial marketing responsibility for western coal sales from the Dry Fork mine and East Texas lignite reserves. Develop computer programs on an as-required basis for all groups within PCC.

Key Achievements:

- Directed all design, planning and evaluation activities, which lead to the development of four new mines. A 1.8-million ton/year Texas lignite mine with annual Net Pre-Tax Cash Flow of $17.3 million. A 0.8-million ton/year Louisiana lignite mine with annual Net Pre-Tax Cash Flow of $2.9 million. A 3.3-

million ton/year Wyoming sub-bituminous mine with annual revenues of $9.0 million. A 3.5-million ton/year Mississippi lignite mine with projected annual Net Pre-Tax Cash Flow of $30.5 million.

- Key member of the business development team that secured a 40-year coal sales totaling 120 million tons from an undeveloped Wyoming sub-bituminous reserve.
- Key member of the business development team that secured a 30-year power sales contract with the TVA and associated coal sales contract, as part of the Red Hills Power Project in Mississippi.
- Marketing lead for a 2-million ton coal sale from a Wyoming sub-bituminous mine with $4.7 million in revenue.
- Facilitator for Phillips Petroleum Company Problem Solving Teams within WorldWide Exploration and Development.
- Lead member of the business development team that secured a joint venture agreement for the development of an East Texas lignite project. This joint venture generated $2 million for a 1/3 interest in the project.
- Key asset sales team member during the sale of Phillips Coal Company, responsible for all cost estimate and cash flow projections, culminating with +$190 million from this sale.

1979 – 1980 **The Coteau Properties Company (The North American Coal Company**) - Bismarck, ND

Senior Mining Engineering

Prepared detailed project engineering and evaluation through engineering feasibility studies. Defined proper mining methods, equipment selection, and mine-site facilities. Developed operating costs and manpower and production requirements to develop a 5.2 million-ton per year mine. Developed mining equipment bid request specifications and selected equipment for mine start-up. Developed and tracked all budgets and phases of construction.

Key Achievements:

- Wrote specifications for, bid and purchased the first $15 million of mining equipment.
- Developed a detailed monthly work schedule to keep current mine employees busy during a two-year delay in start up by the mine customer.

1976 – 1979 **Arch Mineral Corporation** – Hanna, WY

Manager of Engineering, Western Division

Directed, planed, and scheduled all detailed phases of engineering work at three 3-million ton per year strip mines. Developed or coordinated the development of computer programs for mining methods and cost studies. Directed and coordinated all mine development and construction activities at the Seminoe No. 2 mine. Coordinated inter-group/staff support function encompassing all mining permits on operating and undeveloped properties. Coordinated the collection of all environmental data. Coordinated with State and Federal agencies in the obtainment of amendments, modifications, other permit rights.

1975 – 1976 **Morrison-Knudsen Company** – Boise, ID

Mining Engineering

Performed all property evaluation, mine design, equipment selection and scheduling, economic analysis and report writing on projects for client companies.

1975 – 1975 **Pacific Minerals (NERCO**) – Rock Springs, WY

Mine Engineer/Relief Pit Foreman

Prepared detailed yearly mine plans and monthly production reports. Prepared coal reserve estimates. Supervised mine production activities at the Jim Bridger Mine (3.5-million tons per year).

EDUCATION & CREDENTIALS

Bachelor of Science, Mining Engineering
Colorado School of Mines, Golden, Colorado – 1974

Registered Professional Engineer (Mining)
State of Wyoming #4856

Recent Technical Training

Project Risk Mitigation/Contingency Planning
Belt Conveyor Design, Engineering and Component Selection
Principles of Stability Analysis
Analysis of Slopes By Windows Version of REAME
Geostatistics for the Coal Industry
Asset Development Process
Advanced Decision Analysis and Business Modeling
SurvCadd Advanced Mine Module Training

Professional Vita
Gerald (Jerry) E. Vaninetti

OVERVIEW

Mr. Vaninetti has 30 years of experience in the technical, market, and economic aspects of the coal industry. He has extensive business development, public speaking, and marketing experience throughout the coal industry and has worked on projects in all major North American coal fields and toured more than 100 coal-fired power plants. In recent years, he has specialized in the market and economic aspects of coal and coal transportation, including extensive litigation support and expert witness testimony.

EMPLOYMENT HISTORY

- **1999-Present**: President, Great Northern Properties LP and Vice-President, Western Pocahontas Properties LP; responsible for managing GNP's royalty interests from five mines annually producing 25 MMTPY and for developing and leasing GNP's substantial western coal land interests, including mine-mouth power plants; business development for the identification and evaluation of energy-related investment opportunities.

- **1993-1999**: Principal, Coal Consulting Practice, Resource Data International, Boulder, CO; responsible for annual revenues of ~$2 million and business development, litigation support, client studies, and 10 person staff largely focused on coal market and transportation industries. Clients included utilities, mining companies, financial institutions, and transportation companies. Extensive public speaking and publishing, including syndicated studies for the Illinois Basin, Powder River Basin, Coal Transportation, Coal Price Forecasts, and Utility Deregulation.

- **1985-1993**: Vice-President of Business Development, Savage Industries, Salt Lake City, UT and Lexington, KY; responsible for identification and development of coal handling and transportation business opportunities throughout the U.S., involving extensive on-site experience in all major coal fields, at more than 100 power plants, and most of the major coal transloading terminals. Responsible for developing $25 million in annual revenues involving 5 MMTPY.

- **1981-1985**: Manager of Fuel Supply Services, Norwest Mine Services, Salt Lake City, UT; responsible for directing consulting studies for mining companies, utilities, and financial institutions. Studies included market evaluations for Utah and Wyoming coal mines, longwall feasibility studies, and extensive on-site experience in all Western coal fields.

- **1972-1981**: Director of Exploration and Fuel Quality Control, Utah Power & Light Company, Mining & Exploration Department, Salt Lake City, UT; responsible for drilling programs and reserve evaluations for coal, uranium, and limestone properties and for company-owned/operated mines that produced ~5 MMTPY. Fuel supply evaluations for existing and proposed power plants. Established fuel quality control and monitoring program for all company-operated power plants and coal mines.

ASSOCIATION MEMBERSHIPS

National Mining Association, Center for Energy & Economic Development, Americans for Balanced Energy Choices, Western Coal Council, Lexington Coal Exchange, Miss. Valley Trade and Transport Council, Chicago Coal Shippers, Southern Coal, Rocky Mtn. Coal Mining Institute, Western Coal Transportation Association, and Association for Transportation Law, Logistics, and Policy.

EDUCATION

BS Geology, Washington State University, 1972
MS Geology, University of Utah, 1979

RESUME

Richard A. Voss
2725 84th Ave. NE
Bismarck, ND 58503
(701) 223-1410

SUMMARY

Over 28 years of project development and industrial management experience throughout the upper Midwest working with a variety of clients, contractors, engineers, architects, and government agencies. Excellent organizational, problem solving, decision-making, and interpersonal communication skills.

EXPERIENCE

Nov. 1999– July, 2001: Lignite Energy Council **Bismarck, ND**

Project Manager – Lignite Vision 21 Project – Phase I Project Manager; Phase II Manager of Projects: Establish and maintain project management of consultants and contractors; interface with federal, state and local agencies and elected representatives, private industry and energy organizations to achieve project growth and development goals for North Dakota's largest economic development project.

1997 to 1999: JH Kelly, LLC **Bismarck, ND**

Regional Manager - North Central Region: Marketing, contract administration, and P/L responsibilities for construction operations and business development. Worked with the Sr. Vice President and Board of Directors developing and executing the company's strategic plan. Principal duties consisted of executive management responsibilities. Responsible for the region's strategic planning resulting in an improved competitive position for J.H.Kelly's North Central Regional office. (Peak Manpower – 250).

1989 to 1997: Voss & Associates **Bismarck, ND**

President: Providing project development and construction management consulting services to the refinery and power plant industries of North Dakota. Responsibilities involve management of various capital and maintenance projects for budgeting, estimating, planning, scheduling, manpower, cost control, and startup. (Peak Manpower – 300).

1987 to 1989: Black & Veatch Engineers-Architects
Coal Creek Station, Underwood, ND / Kansas City, MO

Field Project Manager; Construction Coordinator; Area Manager: Managed 50 million-dollar power plant reconstruction project. Directed and maintained control of over 25 different contractors with a peak work force of 1,500 employees.

1982 to 1987: North American Coal Corporation **Bismarck, ND**

Division Construction Coordinator: Managed Western Division projects from concept through design, estimates, construction, and startup. Projects included materials handling and storage facilities, maintenance shops, warehouses, office and water treatment facilities.

1981 to 1982: Unimin Corporation
St. Peter, MN / New Canaan, CT

Director of Western Division Construction and Development: Managed all western division projects for the nations largest industrial silica sand producer as well as division purchasing warehousing functions, and public relations.

Construction Manager-Western Division: Managed budgeting, design, estimates, construction, and startup of new facilities, and upgrades of existing facilities in a four-state region. Approved manpower, equipment, and materials for all projects.

1977 to 1981: North American Coal Corporation **Bismarck, ND**

Manager of Special Projects; Industrial Engineer; Design Engineer; Cost & Mine Plant Engineer; Project Development Engineer: Assisted President in labor negotiations, coal field development, public relations, and establishment of operating policies and & cost control procedures. Chaired GNDA committee on coal impact and community involvement. Managed budgeting and contracting for surface facilities design / development, conducted efficiency and productivity studies, and designed pit blasting & dewatering plans.

1975 to 1977: North Dakota State Water Commission **Bismarck, ND**

Design Engineer: Designed and estimated waterways and structures to accommodate open

channel flow for Red River Valley legal drains. Delineated watersheds and drainage areas for initial studies on Channel "A" and the Devils Lake basin.

1972 to 1975: Morrison-Knudsen Construction Company
Nekoma, ND / Fairbanks, AK / Boise, ID

Office Engineer; Cost Control Engineer; Modifications Engineer; Assistant Engineer: Provided estimates, project cost control, and change order negotiations on various projects including the Alaskan Pipeline, the Teton Dam, and the ND ABM Missile Project.

EDUCATION

North Dakota State University - College of Civil Engineering
B.S. Construction Management - 1973

POST GRADUATE / PROFESSIONAL EDUCATION

Prioritizing Objectives: Course for objectively analyzing and setting priorities for targeting objectives.

Planning, Decision Making, Problem Solving, and Successful Implementation: (NASA's Pete Hazelwood) course for analytical and objective analysis of solving problems, making tough decisions, and implementing solutions that aren't always popular but are proper.

Industrial Engineering Time Management & Effective Labor Control: Evaluation methods for maximizing productivity, utilizing time studies, and unit cost analysis.

Economic Evaluation and Decision-Making: Financial analysis training for project feasibility, time value of money, and equipment purchasing.

Explosives Design: Technical pattern design for open pit blasting and cost effective design for maximizing breakage.

Waterway Hydraulics: Advanced design for open channel flow.

Project Engineering: Training for lead project engineer on large construction projects.

AWARDS: May 13, 1993, Washington, D.C.: 1992 DART Award from the Construction

Industry Institute. For management excellence in partnering and teamwork on successful projects. (1st Place - Nationwide for Owners, Engineers, Construction Managers, and Contractors.)

PAST PROFESSIONAL MEMBERSHIPS: American Management Association, Rotarian, Chamber of Commerce, Construction Management Association of America, and Society of Mining Engineers.

PROFESSIONAL PAPERS: (co-authored) "Lignite Vision 21: A Public/Private Partnership with a Vision for the Future - THE NORTH DAKOTA LIGNITE PARTNERSHIP"given at EPRI's International Lignite Conference, Weisbaaden, Germany, May, 2001; "Lignite Power Generation in North Dakota – Cost, Performance and Emissions of Viable Technologies" given at the International Power-Gen Conference, Orlando Florida, Nov.2000; "Cold Weather Conveyors - Construction, Operation, and Maintenance" given at North Dakota's Annual Energy Generation Conference, 1982.

GNP FUNDING - LV 21 FEASIBILITY PROJECT

Appendix F

01-Aug-01

	Estimate											
	Nov-01	Dec-01	Jan-02	Feb-02	Mar-02	Apr-02	May-02	Jun-02	Jul-02	Aug-02		Total
ITEM												
IN-KIND COSTS												
Management	$21,650	$21,650	$21,650	$21,650	$21,650	$21,650	$21,650	$21,650	$21,650	$21,650		$216,500
Travel	$5,000	$5,000	$5,000	$5,000	$5,000	$5,000	$5,000	$5,000	$5,000	$5,000		$50,000
Subtotal	$26,650	$26,650	$26,650	$26,650	$26,650	$26,650	$26,650	$26,650	$26,650	$26,650		$266,500
CONSULTANTS												
Project Feasibility												
Manager	$10,000	$10,000	$10,000	$10,000	$10,000	$10,000	$10,000	$10,000	$10,000	$10,000		$100,000
Black & Veatch	$50,000	$50,000	$50,000	$50,000	$50,000	$50,000	$50,000	$50,000	$50,000	$50,000		$500,000
Mine Development	$20,000	$20,000	$20,000	$20,000	$20,000	$20,000	$20,000	$20,000	$20,000	$20,000		$200,000
Transmission - V&E	$2,500	$2,500	$2,500	$2,500	$2,500	$2,500	$2,500	$2,500	$2,500	$2,500		$25,000
ABB		$55,000			$55,000							$110,000
Air & Water - Bison	$8,000	$5,000	$5,000	$5,000	$5,000	$5,000	$5,000	$5,000	$5,000	$5,000		$53,000
Mine Eng. - M&M			$12,000	$12,000	$12,000	$12,000						$48,000
Pwr Mktng - TBA	$22,000			$22,000								$44,000
Subtotal	$112,500	$142,500	$99,500	$121,500	$154,500	$99,500	$87,500	$87,500	$87,500	$87,500		$1,080,000
Totals	$139,150	$169,150	$126,150	$148,150	$181,150	$126,150	$114,150	$114,150	$114,150	$114,150		$1,346,500

CONFIDENTIAL - Appendix G