

U.S. SYNTHETIC FUELS CORPORATION OVERVIEW

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IT'S A PRIVILEGE TO BE ABLE TO ADDRESS THIS GROUP TWO YEARS RUNNING. IT ALSO MAKES IT EASIER TO BEGIN WRITING BECAUSE I CAN START OUT BY LOOKING BACK AT WHERE WE WERE AND REVIEWING EVENTS FROM THEN TO NOW.

I DID LOOK BACK TO WHAT I SAID LAST YEAR. IT SEEMS THE KEY WORDS WERE, "WHEN WE HAVE A BOARD OF DIRECTORS . . .". LAST AUGUST WE HAD A CHAIRMAN AND A STAFF FEELING THEIR WAY INTO THEIR RELATIONSHIP WITH EACH OTHER AND TO THE JOB AT HAND.

IN OCTOBER 1981, THE DIRECTORS WERE CONFIRMED BY THE SENATE AND SWORN IN. THE BOARD HELD ITS FIRST MEETING AT THE END OF THAT MONTH. IN ADDITION TO STARTING UP A SYNTHETIC FUELS INDUSTRY, THEY ALSO HAD TO START UP A CORPORATION. AN IMMENSE AMOUNT OF ADMINISTRATIVE WORK HAD TO BE ACCOMPLISHED, AND IT WAS DONE RELATIVELY QUICKLY. BY ITS JULY 1982 MEETING, THE BOARD REQUIRED LESS THAN 30 MINUTES TO HANDLE ADMINISTRATIVE MATTERS, AND ABOUT HALF OF THIS WAS THE PRESIDENT'S MANAGEMENT REPORT.

WITH THE BOARD MAKING DECISIONS, WE WERE ABLE TO ACTIVATE THE FIRST SOLICITATION, WHICH HAD CLOSED IN MARCH 1981, BY PUTTING OUT AN AMENDMENT REQUESTING ADDITIONAL INFORMATION. THE CLOSING DATE ON THIS REQUEST WAS JANUARY, 1982. OF THIS YEAR. OF THE ORIGINAL 63 PROPOSALS, 28 PROVIDED THE ADDITIONAL INFORMATION. FIVE OF THESE SURVIVED THE MATURITY AND STRENGTH EVALUATIONS. TWO OF THESE ARE IN NEGOTIATION DISCUSSIONS -- HAMPSHIRE AND BRECKINRIDGE. THE OTHER THREE: CALSYN, MEMPHIS AND FIRST COLONY FARMS SUBSEQUENTLY WERE SET BACK TO THE SECOND SOLICITATION BECAUSE THEY HAD NOT ACHIEVED CERTAIN TIME/STRENGTH CONDITIONS IN THE EVALUATION CRITERIA.

IN FEBRUARY 1982, PRESIDENT REAGAN DECLARED THE U. S. SYNTHETIC FUELS CORPORATION OPERATIONAL. AS A DIRECT RESULT, THE SFC ASSUMED RESPONSIBILITY FOR THE TOSCO PORTION OF THE COLONY PROJECT AND UNION THE OIL COMPANY SHALE PROJECT. SUBSEQUENTLY, WHEN EXXON, THE MAJORITY PARTNER, SHUT DOWN THE COLONY PROJECT, (WE WERE ABLE TO HELP TOSCO EXTRICATE ITSELF SATISFACTORILY AND HAVE ALL THE GOVERNMENT DEBT REPAYED). THE UNION PROJECT IS PROCEEDING IN GOOD SHAPE TOWARDS A LATE 1983 START-UP.

A SECOND GENERAL SOLICITATION CLOSED JUNE 1, 1982. THIRTY-FIVE PROPOSALS WERE RECEIVED. THE STAFF IMMEDIATELY SET TO WORK ON THE MATURITY EVALUATIONS OF THIS GROUP OF PROJECTS.

IN PARALLEL WITH THESE AND OTHER ACTIVITIES THE STAFF, FOR THE PAST EIGHT MONTHS, UNDER THE DIRECTION OF THE BOARD, HAS BEEN STUDYING THE PROGRAMMATIC ASPECTS OF THE PRODUCTION AND DIVERSITY OBJECTIVES. ONGOING RESULTS OF THIS

STUDY HAVE BEEN REPORTED AT EACH BOARD MEETING THIS YEAR. IN CONNECTION WITH THIS STUDY, THE STAFF DID ANALYSES OF THE PROJECTS PROPOSED IN BOTH SOLICITATIONS AS WELL AS OTHER PROJECTS PROGRESSING INDEPENDENTLY OF THE CORPORATION. WE ALSO ANALYZED INDUSTRY REACTION TO AND COMMENTS ON THE CORPORATION'S OVERALL SOLICITATION AND EVALUATION PROCESS.

THE RESULTS WERE PRESENTED AT THE JULY BOARD MEETING, WHERE IN A SERIES OF DECISIONS DESIGNED TO ACCELERATE THE DEVELOPMENT OF A PRIVATE SYNTHETIC FUELS INDUSTRY, THE BOARD EARMARKED UP TO \$10 BILLION TO ACHIEVE A DIVERSITY OF PROJECTS IN MAJOR RESOURCE BASES, APPROVED A THIRD DRAFT PROGRAMMATIC SOLICITATION, ESTABLISHED GROUND RULES FOR PROJECTS RESPONDING TO THE CORPORATION'S SECOND SOLICITATION AND SELECTED FOURTEEN PROJECTS WHICH MET ITS "MATURITY" TESTS.

OF THE \$10 BILLION, THE BOARD ESTIMATED THAT \$6 BILLION WILL BE INVOLVED IN ACHIEVING A DIVERSITY OF PROJECTS FOR COAL, \$3 BILLION FOR OIL SHALE AND \$1 BILLION FOR TAR SANDS AND HEAVY OIL. THE BOARD MADE NO DECISION ON THE ADDITIONAL \$5 BILLION AVAILABLE.

THE BOARD ALSO DECIDED TO ENCOURAGE QUALIFIED AND SUBSTANTIAL CORPORATIONS TO BECOME ACTIVELY INVOLVED IN, AND FINANCIALLY COMMITTED TO, THE MATURE PROJECTS PENDING BEFORE THE CORPORATION AS WELL AS THOSE PROPOSALS, ESPECIALLY FOR OIL SHALE, WHICH MAY BE SUBMITTED IN THE THIRD SOLICITATION.

THE THIRD PROGRAMMATIC SOLICITATION IS LIMITED TO THREE RESOURCE BASES, COAL (INCLUDING PEAT), SHALE AND TAR SANDS/HEAVY OIL, AND HAS A CLOSING DATE OF JANUARY 10, 1983. IT IS EXPECTED TO RECEIVE FINAL APPROVAL BY THE BOARD AT ITS NEXT MEETING AFTER CONSULTATION WITH THE CORPORATION'S ADVISORY COMMITTEE, A REQUIREMENT OF THE ENERGY SECURITY ACT.

THE GROUND RULES FOR THE PROJECTS APPLYING FOR FINANCIAL ASSISTANCE UNDER THE CORPORATION'S SECOND SOLICITATION ACCELERATE THE STARTING DATE FOR NEGOTIATIONS. THE 14 PROJECTS WHICH PASSED THE CORPORATION'S MATURITY TEST MAY BEGIN DISCUSSIONS ON TERMS AND CONDITIONS OF POSSIBLE AWARDS. IN ADDITION, THE 14 WILL STILL HAVE TO PASS THE CORPORATION'S STRENGTH TESTS, NOW SCHEDULED TO CONCLUDE IN TIME FOR BOARD DECISIONS BY SEPTEMBER.

I WANT TO TAKE A FEW MOMENTS NOW TO DISCUSS PARTS OF THE BACKGROUND FOR THESE ACTIONS IN MORE DETAIL.

AT THE JUNE 17, 1982 MEETING OF THE BOARD OF DIRECTORS, THE STAFF PRESENTED THE RESULTS OF ITS ANALYSIS OF "DIVERSITY" AND PROGRAMMATIC STRATEGY OPTIONS. THIS ANALYSIS CONCLUDED THAT:

- (1) WESTERN OIL SHALE AND THE NATIONAL COAL RESOURCES ARE THE CRITICAL RESOURCES FOR ESTABLISHING THE NATION'S CAPABILITY TO EXPAND SYNTHETIC FUELS PRODUCTION TO A LARGE SCALE FOR THE LONG RUN;
- (2) TAR SANDS/HEAVY OIL RESOURCES OFFER THE POTENTIAL FOR SIGNIFICANT COMMERCIAL PRODUCTION IN THE SHORT RUN EVEN THOUGH THEIR LONGER-TERM CONTRIBUTION MAY BE LIMITED RELATIVE TO OIL SHALE AND COAL; AND

(3) INITIAL COMMERCIAL PRODUCTION EXPERIENCE WITH A FEW GENERIC RESOURCE/TECHNOLOGY COMBINATIONS USING THESE HIGH PRIORITY RESOURCES WOULD DO MUCH TO ENHANCE NATIONAL SECURITY BY IMPROVING THE CAPABILITY FOR SYNTHETIC FUELS PRODUCTION IN BOTH THE SHORT AND LONG RUN. THE STAFF PRESENTED FOUR PROGRAMMATIC OPTIONS FOR THE BOARD'S CONSIDERATION, EACH CONSISTENT WITH THE RESULTS OF THE ANALYSIS.

SUBSEQUENTLY, THE PROGRAMMATIC OPTIONS WERE MORE FULLY DISCUSSED WITH EACH BOARD MEMBER ON AN INDIVIDUAL BASIS. BASED ON THE RESULTS OF THESE DISCUSSIONS AND ADDITIONAL ANALYSIS OF THE PROJECTS SUBMITTED UNDER THE SECOND SOLICITATION, THE STAFF DEVELOPED PROGRAMMATIC RECOMMENDATIONS FOR THE BOARD'S CONSIDERATION. THESE RECOMMENDATIONS GENERALLY REFLECT AN INTEGRATED OPTION OF ASSISTING PROJECTS USING DIVERSE RESOURCE/TECHNOLOGY COMBINATIONS THAT OFFER MAXIMUM LONG-TERM PRODUCTION POTENTIAL WHILE ALSO ASSISTING DIVERSE COMBINATIONS THAT HAVE GOOD POTENTIAL FOR NEAR-TERM CONTRIBUTIONS TO NATIONAL PRODUCTION GOALS.

THE STAFF RECOMMENDED AND THE BOARD APPROVED THE IDEA THAT APPROXIMATELY TWO-THIRDS OF THE CORPORATION'S AVAILABLE OBLIGATIONAL AUTHORITY BE EARMARKED FOR THE THREE PRIORITY RESOURCES OF OIL SHALE, COAL, AND TAR SANDS/HEAVY OIL. THE ESTIMATED AMOUNTS, APPROVED BY THE BOARD, ARE AVAILABLE TO ASSIST PROJECTS AND ADVANCE THE CORPORATION'S OBJECTIVES UNDER THE FIRST AND SECOND GENERAL SOLICITATIONS, THE THIRD OR PROGRAMMATIC SOLICITATION, AND SUBSEQUENT SOLICITATIONS.

IT WAS ALSO RECOMMENDED THAT THE APPROXIMATE ONE-THIRD OF THE OBLIGATIONAL AUTHORITY THEN REMAINING (ABOUT \$5 BILLION) BE ADDRESSED IN THE FUTURE AND NOT BE EARMARKED FOR ANY PARTICULAR USE AT THIS TIME. THIS FUNDING CAN BE USED TO THE EXTENT THE BOARD DEEMS NECESSARY TO ADVANCE THE PRODUCTION OBJECTIVE, ROUND OUT THE DIVERSITY OBJECTIVES AS MORE INFORMATION AND EXPERIENCE BECOME AVAILABLE, AND ASSIST PROJECTS OF PARTICULAR INTEREST THAT USE OTHER RESOURCE BASES OR DEVELOP ADDITIONAL EXPERIENCE AND INFRASTRUCTURE.

THE BOARD RESERVED THE RIGHT TO MODIFY THESE ESTIMATES AT ANY TIME, BUT THE ESTIMATES INDICATE THE BOARD'S INTENTION TO FOCUS ON OIL SHALE, COAL AND TAR SANDS/HEAVY OIL, AND TO ASSIST SEVERAL PROJECTS IN EACH CATEGORY. THE AMOUNTS ESTIMATED FOR EACH CATEGORY SHOULD BE SUFFICIENT TO ENCOURAGE POTENTIAL SPONSORS TO CONTINUE DEVELOPING THEIR PROJECTS BUT LIMITED ENOUGH TO PROVIDE SOME COMPETITIVE PRESSURE. GIVEN THE PRESENT STATUS OF PROJECTS AVAILABLE, THE CORPORATION WOULD NOT BE DELAYING ITS EFFORTS BY WITHOLDING A PART OF THE OBLIGATIONAL AUTHORITY. AS MORE IS LEARNED ABOUT THE MOST PROMISING AREAS, ADDITIONAL AMOUNTS CAN BE EARMARKED FOR THE THREE PRIORITY RESOURCES, OR FOR OTHERS, AND ADDITIONAL SOLICITATIONS ISSUED, PROBABLY FOR SPECIFIC TYPES OF PROJECTS OR FORMS OF ASSISTANCE.

OIL SHALE (\$3 BILLION): COMMERCIAL PRODUCTION EXPERIENCE WITH SEVERAL TECHNOLOGIES SUITABLE FOR WESTERN OIL SHALE IS ESSENTIAL FOR ESTABLISHING A NATIONAL SYNTHETIC FUELS CAPABILITY. IT IS LIKELY THAT FUTURE OIL SHALE PROJECTS WILL REQUIRE, ON AVERAGE, MORE ASSISTANCE THAN DID UNION (\$400 MILLION), FOR REASONS INCLUDING LOWER OIL PRICE OUTLOOK, INFLATION, AND

DIFFERENT TECHNOLOGY, PERHAPS REQUIRING LARGER SCALE. THIS OUTLOOK IS CONSISTENT WITH REQUESTS FOR ASSISTANCE RECEIVED UNDER THE FIRST AND SECOND SOLICITATIONS. SHOULD THE AVERAGE OIL SHALE PROJECTS REQUIRE ONE BILLION DOLLARS OF OBLIGATIONAL AUTHORITY, \$3 BILLION WOULD ASSIST A MINIMUM OF THREE PROJECTS, TO COMPLEMENT THE UNION PROJECT AND TO ESTABLISH PRACTICAL EXPERIENCE WITH VARIOUS OF THE TECHNOLOGIES READY FOR COMMERCIAL APPLICATION. IF, AS A RESULT OF THE NEGOTIATION PROCESS, PROJECTS REQUIRE LESS ASSISTANCE ON AVERAGE (PER PROJECT, NOT NECESSARILY PER BARREL), MORE PROJECTS CAN BE DONE. THESE PROJECTS (IN ADDITION TO THE UNION PROJECT) ALSO WILL GRADUALLY BEGIN DEVELOPING THE REGIONAL COMMUNITY AND INDUSTRIAL INFRASTRUCTURE THAT COULD FACILITATE FUTURE INDUSTRY GROWTH.

WESTERN OIL SHALE APPEARS TO BE MORE MATURE AND ECONOMICAL THAN EASTERN OIL SHALE AT THIS TIME. HENCE, THE STRONGEST SHALE PROJECTS WILL PROBABLY BE IN THE WEST. IF GOOD EASTERN OIL SHALE PROJECTS ARE AVAILABLE, THEY WILL BE CONSIDERED, PARTICULARLY IF LITTLE ASSISTANCE IS REQUIRED FROM THE CORPORATION.

COAL (\$6 BILLION): COAL PROJECTS, ESPECIALLY THOSE IN THE EAST, APPEAR TO REQUIRE MORE ASSISTANCE ON AVERAGE THAN DO OIL SHALE PROJECTS, BECAUSE OF HIGHER UNIT COSTS, LARGER MINIMUM ECONOMIC SIZE, AND GREATER TECHNOLOGICAL RISK. HOWEVER, IT IS ESSENTIAL THAT THE NATION DEVELOP THE CAPABILITY TO PRODUCE SYNTHETIC FUELS FROM COAL BECAUSE COAL IS LESS LIKELY THAN OIL SHALE TO BE CONSTRAINED BY SITING PROBLEMS IN THE EVENT OF AN AGGRESSIVE NATIONAL EXPANSION OF SYNTHETIC FUELS PRODUCTION.

RELATIVE TO OIL SHALE, THE CHARACTERISTICS OF THE COAL RESOURCE BASE ARE MORE DIVERSE AND UTILIZE A WIDER RANGE OF TECHNOLOGIES. AT THE SAME TIME, HOWEVER, THE LIKELY HIGHER COST OF COAL PROJECTS MAY LIMIT THE NUMBER THAT CAN BE ASSISTED INITIALLY. SEVERAL COAL PROJECTS MAY BE NECESSARY TO BUILD THE EXPERIENCE BASE AND INFRASTRUCTURE THAT WILL IMPROVE THE NEAR- AND LONG-TERM CAPABILITY TO UTILIZE THIS ENORMOUS SYNTHETIC FUEL RESOURCE BASE. THEREFORE, IT IS RECOMMENDED THAT THE LARGEST AMOUNT OF OBLIGATIONAL AUTHORITY (\$6 BILLION) BE EARMARKED FOR THE COAL CATEGORY AT THIS TIME. THE INITIAL SET OF PROJECTS SHOULD PROBABLY INCLUDE A WESTERN SUB-BITUMINOUS COAL PROJECT TO COMPLEMENT THE GREAT PLAINS LIGNITE PROJECT, PLUS TWO EASTERN COAL PROJECTS, AT LEAST ONE USING TECHNOLOGY SUITABLE FOR BITUMINOUS COAL. IT WOULD BE DESIRABLE IF ONE OR MORE OF THESE PROJECTS USED PRESSURIZED FLUID-BED OR PRESSURIZED ENTRAINED-FLOW GASIFIERS.

SHOULD SUCH COAL PROJECTS REQUIRE \$2 BILLION OF OBLIGATIONAL AUTHORITY ON AVERAGE, THE \$6 BILLION WOULD ASSIST A MINIMUM OF THREE PROJECTS. THIS OUTLOOK IS CONSISTENT WITH REQUESTS FOR ASSISTANCE RECEIVED UNDER THE FIRST AND SECOND SOLICITATIONS AS WELL AS THE APPROXIMATE \$2 BILLION COMMITTED BY THE DEPARTMENT OF ENERGY FOR THE GREAT PLAINS PROJECT. IF, AS A RESULT OF THE NEGOTIATION PROCESS, PROJECTS REQUIRE LESS ASSISTANCE ON AVERAGE (PER PROJECT, NOT NECESSARILY PER BARREL), MORE THAN THREE PROJECTS CAN BE ASSISTED WITHIN THE RECOMMENDED \$6 BILLION, THUS PROVIDING STILL GREATER TECHNOLOGICAL DIVERSITY AND INFRASTRUCTURE DEVELOPMENT.

TAR SANDS/HEAVY OIL (\$1 BILLION): ALTHOUGH THE LONG-TERM SIGNIFICANCE OF THIS RESOURCE IS LESS FOR THE UNITED STATES THAN THAT OF OIL SHALE OR COAL,

PRODUCTION LEVELS ON THE ORDER OF HALF A MILLION BPD MAY BE POSSIBLE WITHIN A RELATIVELY SHORT TIME (POSSIBLY FIVE TO TEN YEARS) AND AT RELATIVELY LOW COST TO THE CORPORATION ON A "DOLLAR PER BARREL" BASIS. THE TECHNOLOGIES AND RESOURCES BEING PROPOSED FOR TAR SANDS/HEAVY OIL PRODUCTION ARE MANY AND DIVERSE, AND SOME CAN BE USED COMMERCIALY ON A SMALL SCALE WITH RELATIVELY LITTLE ASSISTANCE, TYPICALLY \$50 TO \$100 MILLION; OTHERS MAY REQUIRE SIGNIFICANTLY MORE. ACCORDINGLY, IT WAS RECOMMENDED THAT APPROXIMATELY \$1 BILLION OF OBLIGATIONAL AUTHORITY BE EARMARKED FOR THE TAR SANDS/HEAVY OIL RESOURCE TO ENCOURAGE COMMERCIAL PRODUCTION FROM A WIDE DIVERSITY OF TECHNOLOGIES AND RESOURCES AS WELL AS TO PROVIDE NEAR-TERM PRODUCTION, IMPROVE INFORMATION ABOUT THE SIGNIFICANCE OF THE RESOURCES BASE, AND IMPROVE THE CAPABILITY TO EXPAND PRODUCTION IN THE NEAR FUTURE.

I AM GOING TO CLOSE WITH A QUOTE FROM A TALK BY ED NOBLE, CHAIRMAN OF THE SYNTHETIC FUELS CORPORATION, A FEW DAYS BEFORE OUR JULY BOARD MEETING:

"THIS, THEN, IS WHERE WE STAND IN THE DEVELOPMENT OF A DOMESTIC SYNTHETIC FUELS INDUSTRY. I KNOW THE CORPORATION HAS BEEN ACCUSED OF GOING TOO SLOWLY BY SOME, AND OF DOING MORE THAN IS NECESSARY BY OTHERS. BUT FROM MY POINT OF VIEW IT HAS BEEN ABSOLUTELY ESSENTIAL THAT WE PROCEED IN AN ORDERLY AND RESPONSIBLE WAY. I THOUGHT THAT IF WE TOOK A LITTLE MORE TIME IN THE BEGINNING, WE WERE LIKELY TO HAVE FEWER PROBLEMS LATER.

IF WE CONTINUE TO FOLLOW A CAREFUL COURSE AND COOPERATE CLOSELY WITH THE PRIVATE SECTOR, I BELIVE WE CAN BEGIN THE SUCCESSFUL COMMERCIAL PRODUCTION OF

LIQUIDS AND GAS FROM THE VAST AMOUNTS OF SOLID FOSSIL RESOURCES AVAILABLE IN THIS COUNTRY. MOREOVER, WE CAN DO THIS WITHOUT CAUSING CONFUSION OR DISRUPTION IN THE MARKETPLACE AND WITHOUT SPENDING A GREAT DEAL OF FEDERAL MONEY. WE CAN GET AN INDUSTRY STARTED AND THEN STEP BACK, WITH THE SURE KNOWLEDGE OF HAVING MADE A REAL CONTRIBUTION TO AMERICA'S DEFENSE SECURITY, ECONOMIC STABILITY, AND LEADERSHIP ROLE IN THE FREE WORLD."