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- BEFORE THE PUBLIC SERVICE COMMISSION OF UTAH -

In the Matter of the Application of)
UTAH POWER & LIGHT COMPANY) CASE NO. 5639
for a Certificate of Convenience and)
Necessity to operate as a Public)
Utility rendering electric service,)

In the Matter of the Application of)
RAFT RIVER RURAL ELECTRIC) CASE NO. 5640
COOPERATIVE, INC., for a)
Certificate of Convenience and Necessity)
to operate as a Public Utility rendering)
electric service.)

REPORT, FINDINGS AND CONCLUSIONS

Submitted: March 27, 1968

Issued: April 19, 1968

Appearances:

Sidney G. Baucom	For	Utah Power & Light Company
David E. Bean	"	Raft River Rural Electric Cooperative, Inc.
Robert M. Yeates	"	Local 57, International Brotherhood of Electrical Workers
Peter W. Billings	"	The Magnesium Project
George E. Boss	"	The Lithium Corporation of America
William G. Fowler	"	Special Assistant to the Attorney General, State of Utah, for the Public Service Commission of Utah
T. E. Thain	"	Commission Staff

By the Commission:

INTRODUCTORY STATEMENT

The above entitled matter came on regularly for hearing before the

Commission at Salt Lake City, Utah, on the 13th day of July 1966, on applications of Utah Power & Light Company and Raft River Rural Electric Cooperative, Inc., filed in September, 1965, and hearings have proceeded forward from that date, being continued from time to time, and being originally concluded on January 27, 1967. Raft River filed a Motion to Reopen the case on August 9, 1967, and on September 29, 1967, a Motion to Intervene as a party was filed by The Magnesium Project, a potential 80 megawatt industrial customer. Both of these Motions were granted.

In the interest of brevity the following abbreviations will be used to identify certain parties and organizations involved in this proceeding:

Utah Power & Light Company	Utah Power
Raft River Rural Electric Cooperative, Inc.	Raft River
Bonneville Power Administration	BPA or Bonneville
The Magnesium Project	Magnesium Project or Project
Lithium Corporation of America	Lithium
Rural Electrification Administration	REA
International Brotherhood of Electrical Workers, Local 57	Local 57
Idaho Power Company	Idaho Power

Due Notice of Hearing, including all reopenings, was given by mailing and publication as provided by law.

Raft River's Application was for a Certificate of Convenience and Necessity to supply electrical service in Box Elder County. There were amendments filed as to the proposed service area and finally the Application was amended to include a portion of Tooele County. Raft River is incorporated in the State of Idaho, is presently serving consumers in a portion of western Box Elder County and proposes to extend and expand service to a larger area in that County and in the northern portion of Tooele County.

Utah Power's protest to this application alleged that it was an electrical corporation and public utility doing business in the area sought to be certificated, that the facilities proposed by Raft River would duplicate its facilities, that Utah Power is adequately serving the present needs of the area and can serve the future needs, that the granting of the application would result in open and destructive competition and result in loss and damage to Utah Power, its consumers and the public generally, and that there was no present or future need for the Certificate requested by Raft River.

An additional protest was filed by the International Brotherhood of Electrical Workers, Local 57. It alleged that expansion of Raft River's electric utility service as requested would be detrimental to the interests of organized labor.

Utah Power's application for a Certificate of Public Convenience and Necessity to furnish electric service in Box Elder County, Utah, alleged entitlement, by reason of service in Box Elder County since August 21, 1916, under "Grandfather" rights, and based its current application on a franchise issued by Box Elder County. The application prayed for a Certificate of Public Convenience and Necessity to supply electric power and energy in Box Elder County except to persons who were then members of Raft River and desired to continue receiving service from it. Raft River protested this application.

Various motions, including motions to reopen, were filed by all parties during the course of the hearing and those not specifically ruled upon before the record was closed are disposed of by our Findings and Order.

The record was initially closed on January 27, 1967. On August 9, 1967, Raft River filed a Motion to Reopen the hearing and to amend its pending application to enlarge the territory for which certification is sought to include a described portion of Tooele County, Utah. On October 3, 1967, we ordered the matter reopened and further hearing was held.

Following the closing of the record, this Commission, on its own Motion, ordered that the record be reopened for the limited purpose of receiving additional evidence by (1) Magnesium Project, as to elements of cost used by it to make a determination of the maximum price it can pay for power and energy to enable it to proceed; (2) Utah Power, as to elements of cost of service to supply interruptible power and energy to Magnesium Project; and (3) Raft River, as to elements of cost of service to supply interruptible power and energy to Magnesium Project. Hearing pursuant to this Motion and Order was held and concluded on March 27, 1968, and the record was closed.

The foregoing recitals would ordinarily conclude our preliminary statement, but it is appropriate here that we comment on the way we heard this particular case. The Commission en banc heard a substantial part of the evidence and testimony and all of the evidence and testimony relating to the reopened hearings on the case pertinent to Tooele County. Commissioner D. Frank Wilkins presided over all of the hearings on the applications pertaining to Box Elder County and was the only Commissioner to hear all of the evidence and observe the demeanor of witnesses in that portion of the case.

Commissioner Wilkins resigned as a member of this Commission effective January 31, 1967, and therefore remained on the Commission only a few days following the initial closing of the record. He did, however, make certain suggested tentative findings and communicated to the Commission his observations on matters of witness credibility and demeanor prior to the time his resignation became effective. A minute entry on the Commission's January 31, 1967, docket record so indicates and the tentative findings made have been considered in our determinative process.

This procedure we deem to be essential and in compliance with the law of our State relating to the fair hearing of administrative matters. It is also a pro-

cedure in conformity with the guideline rules handed down by our Supreme Court in Crow v. Industrial Commission, 140 P. 2d 321.

The magnitude of the record in this proceeding, more than 4,400 pages of transcript with 227 accompanying exhibits, and the variety of issues presented for our decision require that we now clarify and categorize the findings as they relate to the several applications.

We shall first consider Box Elder County where Raft River and Utah Power have competing applications. We shall then evaluate Raft River's application to serve an area in Tooele County and more particularly Magnesium Project's proposed electrolytic complex on the Great Salt Lake. A substantial part of the testimony and evidence in the Tooele County portion of the proceeding was in effect incorporated by reference by both Raft River and Utah Power from the Box Elder case. Since the parties elected to treat the subject in this manner, we shall summarize the evidence in our Box Elder County findings and where material these findings will apply to the Tooele section of the report.

We also note that substantial parts of the record have become immaterial to our consideration because of conditions being changed and because of the actions and decisions of the parties which have occurred since the time the cases were filed more than two years ago. On these matters, which we have reviewed and considered, the necessity for findings is obviated.

Typical of such testimony and evidence is that of potential but conceded unlikely industrial developers such as Signal Oil Company. Also, the development contemplated by Lithium was rendered moot to Raft River's case by its amendment excluding the eastern portions of Box Elder County.

The Commission has considered the evidence introduced by all parties, and having heard oral arguments by the parties on parts of the record and being fully

advised in the premises now makes the following Findings of Fact and Conclusions together with its Order based thereon.

FINDINGS OF FACT

Summary of Raft River Evidence:

Mr. Edwin C. Schlender testified that he is the General Manager of Raft River. He stated that Raft River is now supplying electric service to consumers in Western Box Elder County in Utah and identified Exhibit 4 as the Company's Box Elder County Franchise.

Mr. Schlender testified that Raft River receives its power from Bonneville, an agency of the United States, and receives delivery of this power at Minidoka, a Bureau of Reclamation dam located in the State of Idaho. He stated that Raft River has about 273 connections in Utah. Regarding peak load requirements, Mr. Schlender testified that the system peaked at 25,000 kw in the summer and 4,200 kw in the winter for 1965 and the projected peak for 1966 was 27,000 kw. The difference between summer and winter loads is due to demand for irrigation pumping in the summer. The witness testified that when there is no irrigation load, a large portion of the system is idle with revenues greatly reduced and fixed costs remaining the same so that for six months of the year the costs exceed revenue.

The witness testified the mortgage note, Exhibit 13, established a maximum loan limitation for Raft River of \$10,000,000 and that as of December 31, 1965, the indebtedness of Raft River to REA was \$2,658,943.46. Mr. Schlender identified Exhibits 17 and 18 as financial forecasts and testified to the method and sources for compilation. He said Raft River was basing its operations on these financial forecasts which had been approved by REA. He further testified that Raft River was current in loan repayments and had never failed to meet its loan commitments and REA had never refused to loan money as required.

Mr. Gerald Diddle and Mr. Joseph Vellone, employees of the REA from Washington, D.C., testified concerning Exhibit 29 and REA bulletins and policies.

Mr. Vellone testified generally that equity as a per cent of total capitalization was not utilized significantly by REA in determining whether or not to make loans to cooperatives and that he did not consider this to be a material factor in determining the financial stability of such a company.

Several public witnesses, Mrs. Vera James, Mr. Reese Warburton, Mr. Herbert Tanner, Mr. Lawrence Carter, Mr. Charles Taylor, and Mr. Archie Rose, testified that they are customers of and receiving necessary electric service from Raft River.

Messrs. Harper, Holmgren, Hendricks, and Wright, and Mr. Oleen Garn testified generally concerning a need for electric service in the Hansel-Curlew area, and that they had had some general conversations with Raft River and Utah Power concerning service and had signed membership applications with Raft River.

Mr. Harold D. Pence, General Manager of Lake Crystal Salt Company, testified of an interest on the part of the Salt Company to have power for its operation in the Promontory area. He stated the Company had a present electrical load of approximately 105 kilowatts.

Mr. Frank Reeder testified that he resides in Box Elder County and is a Box Elder County Commissioner. He was aware of the fact that both parties had applied to the Commission for certification based on franchises issued by Box Elder County. He stated:

"I think that both companies have served real well in our County."

Commissioner Wilkins then asked:

"And, therefore, you are here urging this Commission not to issue an exclusive franchise to either Company?"

The witness replied:

"That's right."

Mr. Wallace B. Spencer, President of Raft River, testified that he resides in Yost, Utah, and that electric power was first received by him from Raft River in 1939. He has been a director of Raft River for 12 years. He testified that the utility has been able to pay all of its bills and that he has no knowledge of any dissatisfaction with its services.

Mr. Golden Gardiner testified that he is the electrical operations manager for Raft River and that his duties include the general supervision of maintenance and construction. He described Raft River's equipment and inventory and stated that the equipment and inventory was sufficient to repair the system in emergency situations.

Mr. Robert E. Lee, an employee of BPA, testified to the ability of BPA to deliver power to Raft River. He said the alternative methods are to wheel over existing facilities of Idaho Power, to construct a Federal line to Southern Idaho, or to construct additional Federal generation in Southern Idaho. He testified that there is not now sufficient existing generation in Southern Idaho to handle an additional 80 megawatts for Raft River to serve Magnesium Project and no Federal transmission system to deliver this amount to Minidoka. He identified Exhibit No. 147 as BPA's advance program from 1967 to 1987, and described how power is delivered to the Raft River system and its source. He said negotiations were underway with Idaho Power for the delivery of BPA power to Southern Idaho, but that Idaho Power and BPA had not as yet signed a contract or negotiated for the 80 megawatts nor had Raft River signed a contract with BPA for 80 megawatts to serve the proposed load of Magnesium Project. He further said that in the event Idaho Power would not agree to wheel the 80 megawatts, BPA would have to make a study to

determine whether construction of a Federal line would be feasible at the present time. Mr. Lee didn't know, nor did he have knowledge of anyone in BPA who could testify, if such a line would be feasible. He said if feasibility were present a request would then have to be made to Congress to authorize funds for construction.

Late in the case concerning the Tooele application, Mr. Schlender testified as to the continuity of the Raft River operation since January, 1967, when he had previously testified. He said Raft River had the same number of employees, same board of directors and officers, and the debt structure remains the same. He identified Exhibit No. 149 as the October month-end report of operations and this report shows expenses increased disproportionately to revenues in the last year. He said that no application has been made to BPA for power for Magnesium Project because a certificate was required first and on receiving this Raft River would sign a contract with Magnesium Project, sign a contract with BPA, and file an application for a REA loan to construct the facility required for extension of service. On cross-examination, he said Magnesium Project would not be classified as a residential or agricultural user and that REA loans are for the purpose of providing rural electrification. He further said the proposed service to Magnesium Project is dependent on Raft River's ability to secure an REA loan.

Mr. Fred B. Liquin, consulting engineer, testified as to Raft River's electrical system, lines and facilities, present and proposed.

Witness Larry Baccari, identified Exhibit No. 128 showing BPA's service area in Utah; Exhibit No. 143 which shows the proposed transmission line from Minidoka to Magnesium Project; Exhibit No. 144 as the estimated construction cost of the line to serve Magnesium Project; Exhibit No. 145 as the cost of Raft River Power.

Summary of Magnesium Project Evidence

Edwin R. Rowley, President of National Lead, testified that Magnesium Project is a joint venture owned 80 per cent by National Lead and 20 per cent by the Hogel-Kearns Corporation and that the Project Manager is Mr. Alvin Ash.

Magnesium Project, he said, intends to construct an electrolytic processing complex on the shores of the Great Salt Lake in Tooele County which will produce 45,000 tons of magnesium per year "providing proper power rates are available."

He said chlorine, gypsum, and lithium salts would also be produced and that over four million dollars in developmental work had been expended thus far.

He said that since Mr. Wunder, the Project's former manager, had testified in the proceeding that a decision had been made to move the Project site northward to come within an area that can be served by BPA.

He said that a power cost of approximately 3.1 mills per kilowatt hour is necessary for the project to be viable and proceed and that Raft River has offered power at this rate. He said cost of power is the single largest factor in the cost of producing magnesium and that the primary markets for magnesium would be in the Midwest for the automotive industry and at various locations throughout the nation for use in aluminum alloys.

On cross-examination, he testified that "approximately 3.1 mills" means "plus or minus 1/10 of a mill," and that feasibility is based on 95 per cent load factor and further that once the plant was built, the project would not close down if power costs went up by one mill per kilowatt hour.

On redirect examination he said he would authorize the project to proceed now if power could be supplied at a rate of 3 to 3.2 mills per kilowatt hour with a 95 per cent load factor.

James E. Hogle, Vice President, Hogle-Kearns Company, testified that Hogle-Kearns has a 20 per cent interest in the Magnesium Project and thus far has spent \$750,000 in its development and that it was ready to proceed with its share of the project if National Lead goes forward.

Alvin G. Ash identified Exhibit No. 131 as a map showing the proposed plant location of Magnesium Project and stated that the location was within the service area of BPA. He testified that this facility would involve an expenditure of approximately 52 million dollars and take 24 months to construct; would involve a 10 million dollar expenditure for supplies and materials in the State of Utah; and would employ 800 to 1,000 men during construction. He identified Exhibit No. 132 as an Exhibit setting forth these estimates.

He further testified that the plant would have 320 employees with an annual payroll of \$3,356,000 per year. He identified Exhibit No. 133 as an estimate of annual expenditures for supplies, equipment, and material. He testified that royalties and rentals would be \$163,000 per year and total taxes would be \$500,000 per year. He said that the plant would produce 45,000 tons of magnesium metal; 81,000 tons of liquid chlorine; 48,000 tons of gypsum; and unspecified amounts of other products such as lithium salts. He testified as to the uses of these products and possibilities of attracting satellite industries to Utah.

He testified that the Magnesium Project required 120 megawatts of power, 40 to be self-generated and 80 to be purchased, and that cost of power is the most important single factor in operating expense.

On cross-examination, he refused to testify as to the cost of self-generated power, but stated Magnesium Project was self-generating for two purposes: (1) a need for large quantities of heat and the economy of obtaining power from the gas that must be burned for heat, and (2) forty megawatts of self-generated power

offers a reliable power supply in the event the line into the plant fails or power is interrupted. He said the plant would operate 24 hours a day for 365 days a year and feasibility was based on taking interruptible power. He said there is no requirement for power reliability for the 80 megawatts because of the 40 megawatts of self-generation.

Witness Iver E. Bradley, Economics Professor, described an "input-output" analysis and identified Exhibits No. 139 through 142, which indicated the estimated income generated from Magnesium Project's purchases and wages. He concluded that this would generate an additional \$6,760,000 to the Utah economy and other benefits would result from sales and income taxes and income resulting from increased railroad activity.

Summary of Utah Power Evidence

Mr. James C. Taylor, Commercial Manager of Utah Power, testified to Exhibit No. 50, the Company's Certificate of Good Standing in the State of Utah; Exhibit No. 51, its Certificate of Organization; and Exhibit No. 52, a franchise from Box Elder County, dated August 21, 1916. This he said was granted prior to the creation of this Commission in 1917 and that Utah Power had been exercising its "Grandfather" rights since that time. On July 20, 1965, Utah Power, as shown by Exhibit No. 53, was granted a franchise by Box Elder County which expires August 2016.

Mr. Taylor further testified through Exhibit No. 57 that Utah Power had invested \$15,498,527 in Box Elder County which includes 777 miles of line; serves 4,764 customers therein; receives \$1,356,783 in annual revenue; and pays \$378,744 in taxes specifically attributable to the Company's property and operations in that county. He testified that part of such investment was dedicated to serve other than in Box Elder County and in like manner certain invest-

ment in counties beyond Box Elder was dedicated to serve customers within such county. Exhibit No. 58 shows that Utah Power investment in Box Elder County ranks fifth in its investment for all counties in the State.

Mr. Taylor testified that Exhibits No. 59 and 60 illustrate the investigations Utah Power makes with respect to industrial development potential of areas it serves and how such an evaluation is utilized in determining the capacity of electric facilities it may extend. He said, through Exhibit No. 61, that Utah Power had both received and made inquiries concerning new electrical service for some 46 potential consumers (seen from this Exhibit and Exhibit No. 6 to be in the areas from the West shore of the Lake Northerly to the Snowville Area and between the East shore of Bear River Bay and the Hogup Mountains), much of the area being comprised of the Hansel and Curley Valleys (Hansel-Curlew) and that the Company had prepared estimates of the cost of service for such consumers and was ready, willing, and able to provide service consistent with its rules and regulations as approved and ordered by this Commission. Negotiations have been conducted by Utah Power with Lithium and a subsidiary of Salzdetfurth A.G., a West German corporation, and with The Dow Chemical Company. Mr. Taylor testified that a proposed Agreement had been submitted by the Company to Lithium, Exhibit No. 62, and that the Agreement had been approved in substance by that Company and was awaiting approval by Salzdetfurth. With respect to Dow, Mr. Taylor testified that a proposal, Exhibit No. 63, had been submitted and was still in the process of negotiation.

Exhibit No. 66 illustrates Utah Power's request for a service area in Box Elder County and is shown in blue. Mr. Taylor testified the area shown in red was the area in which Raft River's members currently receive service. He testified Utah Power was ready, willing, and able to serve any customers in the red area not

desiring to receive service from Raft River.

He stated that the potential customers in the Hansel-Curlew area referred to in Raft River's Amended Application were closer to Utah Power's existing facilities than those of Raft River. He also testified these facilities had sufficient capacity to serve the proposed new customers and that construction on the part of Raft River would be a wasteful duplication of Utah Power's existing facilities.

Mr. A. R. Dunn, Manager of Utah Power's Rate Department, introduced a compilation of the Company's rate schedules and electric service regulations as Exhibit No. 72. As to the extension policy of Raft River, Mr. Dunn stated that in each of the primary categories of service the minimum annual payment required by Raft River's extension policy was deficient in recovering its annual cost to serve and detailed this in his study, Exhibit No. 73. He also analyzed Raft River's Exhibit No. 17 and concluded in his Exhibit No. 74 that Raft River's financial forecast overstated its revenues and understated its purchased power costs, and that the primary difference in the revenue forecasts was an overstatement of revenue due to the failure of Raft River to reduce revenue per kilowatt hour when increasing the consumption per customer assumed in its estimates. Mr. Dunn also testified concerning the effect of wet cycle precipitation on revenue and in Exhibit No. 75 shows that because Raft River's loads are predominantly for irrigation pumping a wet cycle will substantially reduce projected revenue. Mr. Dunn identified Exhibit 172 as showing the discriminatory effect on present Raft River ratepayers resulting from service to Magnesium Project, and No. 173 showing cost of power to Magnesium Project of 3-1/2 to 4.1 mills if Magnesium Project rate were based on a contribution to capital equal to that of other Raft River ratepayers on a 35 year amortization basis and 3.7 to 4.3 mills on a 20 year basis.

Mr. O. J. Lowe, General Tax Agent for Utah Power, compared the

Company's investment and ad valorem taxes with those of Raft River in Box Elder County and testified through Exhibits No. 76 and 77 that Utah Power paid \$220,400 annually compared with \$3,000 annually for Raft River.

Mr. John S. Anderson, Assistant Vice President of Utah Power, identified Exhibits No. 165 and 166 which showed that BPA did not have an assured power supply either in the Northwest of Southern Idaho to supply Raft River with 80,000 kw for Magnesium Project.

Mr. Ralph A. Radford, Chief Electrical Engineer for Utah Power, testified to the operating capability of Raft River's facilities to serve customers in Box Elder County. Exhibit No. 84 indicates that Raft River will have to spend \$577,550 for transmission in 1967 in order to provide adequate service to its existing customers in Utah and that an additional \$349,540 in transmission investment will be required in 1969 and \$892,550 in 1971. With respect to Hansel-Curlew, Mr. Radford showed through this Exhibit Utah Power could serve customers which Raft River had applied to serve in the area at an investment savings of approximately \$237,000. Savings in investment results primarily from the ability of Utah Power to utilize the present surplus capacity of its existing facilities in the area shown in Exhibit No. 71.

Mr. Frank Davis, Manager of Engineering for Utah Power, testified to Exhibit No. 85, a map showing Utah Power's comprehensive plan of development for electrical, transmission, and distribution lines around and in the vicinity of the Lake. He stated this plan would be adequate to serve the entire Lake front area including all potential industrial loads. The plan shows additional interchange lines between Utah and Idaho for Lake front customers.

Mr. C. L. Hoskins, a Certified Public Accountant and Manager of Utah Power's Accounting Auditing Division, testified to Utah Power's balance sheet,

Exhibit No. 86, which shows total utility plant of \$362,921,313. He identified Exhibit No. 87 as a Statement of Income and Retained Earnings for 1966 which indicated that net income for the year was \$12,523,015, that accumulated retained earnings as of December 31, 1966, were \$43,298,955, and that Utah Power's equity ratio to total capitalization is approximately 46 per cent as shown on Exhibit No. 88. He computed through Exhibit No. 90 the equity position of Raft River and he prepared a forecast of the future financial position of Raft River based on Raft River's Exhibit No. 17, corrected to reflect revenue and investment adjustments contained in Utah Power's Exhibits No. 74 and 84. From this he contended Raft River's future equity position would diminish ultimately to 8.0 per cent in 1974, as indicated on Exhibits No. 90, 91 and 92. He testified that the effect of Raft River's serving Magnesium Project without providing a margin for equity substantially reduces Raft River's equity position and that taking Mr. Dunn's wet cycle analysis into consideration Raft River's equity would diminish to less than 5 per cent by 1974. He also identified Exhibits No. 167, No. 168, and No. 169, and concluded that service to Magnesium Project by Raft River is not financially feasible because the investment in transmission facilities would not be recovered over the 20 year life of the service contract.

Mr. D. L. Bryner, Manager of Utah Power's Planning Department, testified through Exhibits No. 93 and 94, as to the rates of growth of delinquency, debt, annual deficits, and revenue for all REA borrowers which show a recent upward trend of REA delinquencies and deficits. In rebuttal to Mr. Vellone's testimony concerning certain selected REA borrowers tabulated in Exhibit No. 33, he testified that the REA administrator in Bulletin 102-1 eliminated a "40 per cent equity" policy for REA borrowers and this caused a decline to occur in the rate of equity growth for REA cooperatives. He then testified to a series of comparisons made

between the average of all distribution cooperatives in the United States and Raft River. He concluded that Raft River pays a lower price for power purchased and has administrative and general expenses approximately four times higher than the national average (Exhibits No. 96 and 97).

Mr. Bryner also testified that the Federal Government owned certain electric facilities in Southern Idaho which were utilized by BPA but that such facilities were of a limited character and lacked the physical ability to satisfy BPA's current requirements in Southern Idaho. He further testified through Exhibit No. 99 that there were no Government lines between BPA's system in the Northwest and Southern Idaho over which BPA could transmit power to Raft River pursuant to its contractual obligation set forth in Exhibit No. 9. He also testified to Exhibit No. 100 which contains data released by BPA which indicates that there was a deficiency in power and energy from BPA in Southern Idaho during 1966 and further indicates projected deficiencies for 1967 and 1968.

Mr. Bryner testified through Exhibit No. 124 that BPA was energy deficient in the Northwest in 1966 and that such deficiency would carry over into 1967, and the Exhibit sets forth official documentation of BPA's position that the metals industry, including magnesium, will require at least 500,000 kilowatts of power for which scheduled resources are not available in the Northwest.

Mr. Bryner through Exhibit No. 101 testified that an allocation of Raft River's investment and revenue between states shows Raft River's revenues do not support its current investment in Utah. Through Exhibit No. 176 he testified that Utah Power currently has firm power resources of 1,025,960 kw which exceeds its total load by 116,960 kw and in addition has interconnection capacity of over 1 million kw with other utilities. Further, he stated that Utah Power's present transmission line running from Tooele County into Box Elder County near the proposed

Magnesium Plant site has more idle capacity available to serve new load than Raft River has total capacity to serve in Utah.

Mr. D. L. Broussard, Utah Power's Financial Vice-President, testified as to the financial stability of the Company and as to matters which investors and financial institutions consider when purchasing securities or loaning money to electric public utilities. He testified that an equity ratio to total capitalization of 35 per cent to 50 per cent was required in his opinion to render such a company financially stable and that Raft River was not a financially stable company. He also testified that Raft River's being a cooperative makes no difference in forming this opinion and that any company in times of financial stress needs a sufficient equity position in order that it may have the reserve to service its debt and meet current expenses. He also testified that Raft River had such an extremely high percentage of irrigation pumping income to total revenue that the leverage this alone had on Raft River's revenue made it very important for the company to attain a substantial equity position for financial stability. Through Exhibit No. 121 he testified that the National Rural Electric Cooperative Association in its analysis of the financial stability of REA cooperatives concluded equity was a key factor in this assessment and the experts quoted in the analysis set equity at a level of between 40 per cent to 50 per cent of total capitalization.

Mr. John Langeland, Senior Vice President of Zions First National Bank, Salt Lake City, Utah testified as to the factors considered by banks in loaning of monies to electric public utilities and that a company's equity position was the key and critical factor considered in making such loans. He concluded that Raft River with its low equity ratio was financially unstable and would be unable to borrow money from commercial banks for that reason. He also testified that Raft River's extremely high percentage of revenue derived from irrigation pumping

rendered the cooperative less stable than it would be with a balanced revenue picture. He said such a company should have at least a 40 per cent equity ratio to be considered financially stable. He also testified that Utah Power had in excess of a 40 per cent equity ratio, was financially stable and able to secure bank loans.

Mr. Thomas E. Roach, Chairman of the Board and Chief Executive Officer of Idaho Power testified that Idaho Power has wheeled power for BPA to preference customers including Raft River; that he was aware of a deficiency in BPA's power supply in Southern Idaho and that for several years Idaho Power has been negotiating a new contract with BPA to wheel power to Southern Idaho preference customers. He said Idaho Power is willing to wheel power to supply BPA customers' present requirements and their annual increase of 6 or 7 per cent for normal growth requirements but that Idaho Power would not supply wheeling service for the proposed 80 megawatt additional load of Raft River for Magnesium Project.

Mr. Sam Powell, Mrs. C. T. Parsons, Mr. R. H. Burton, and Mr. J. W. Andrews all testified regarding the adverse effect on their investment as stockholders in Utah Power in the event the certificate sought by Raft River is granted to it. Mr. W. J. O'Connor, Mr. William H. Call, Mr. Frank Stevenson, Mr. Frank Appleyard, Mr. Earl A. Hanson, and Mr. Oran E. House all testified as to adverse effect on respective companies and organizations they represented in the event such certificate is granted. Mr. Gus Backman testified as to efforts and activities of Utah Power to attract and maintain new industry. Mr. Marvin Bertoch testified as to the legal feasibility of Raft River's proposed line extension, that he had researched the procedures and law relative to obtaining REA loans. He said procedure requires the Secretary of Agriculture to obtain a legal opinion from the Comptroller General as to the validity of such loans; that in a case similar to Raft River's proposal the Comptroller General said a loan by the REA in such instance was in

violation of the non-competitive legislative intent of the REA Act; and the witness rendered an opinion that a loan to Raft River for purpose of constructing a line to Magnesium Project would be illegal.

Professor Roger Nelson identified Exhibit No. 160, testified that service to Magnesium Project by Utah Power at 5.26 mills per kilowatt hour would result in economic benefits to the State of \$6,225,080 annually. He testified that Exhibit No. 161 indicated that the effect on the State if Utah Power lost 288 megawatts of industrial load would be a loss in business and household income in the amount of \$18,157,350.

Mr. Carl C. Dean of the Bureau of Mines identified Exhibits No. 163 and 164 as studies relating to cost factors and the economics of Magnesium production.

Mr. E. M. Naughton, President and General Manager of Utah Power, testified that his company and the general public would be damaged if subsidized government power were allowed to come into Utah under the Raft River proposal, and that Utah Power was ready, willing, and able to serve any and all present and potential customers in the area with electric power and energy. He said:

"I want to make it clear that we will be delighted to serve this customer at any reasonable rate that is set by this Commission."

Summary of Evidence of Local 57

Mr. Ralph Hedquist, Business Agent for Local 57, testified concerning that Union's Protest to Raft River's Application and through his testimony numerous exhibits were introduced relating to the contract of Local 57 with Utah Power and component wage schedules and fringe benefit provisions. Through Mr. Schlender, Raft River's Salary and Wage Administration Bulletin was introduced together with exhibits relating to fringe benefits for employees.

Much proffered evidence of the Union was ruled inadmissible, and the Union therefore made an offer of proof with respect to the alleged deleterious effect REA cooperative policy has on organized labor, and unfair labor practices allegedly perpetrated by cooperatives in various parts of the country.

Issues and Ultimate Findings

The principal issues presented for our determination in this proceeding are:

1. Whether there is a need, demand, or necessity by the general public for the proposed service of either Utah Power or Raft River in the respective areas sought to be certificated by each.
2. Whether the proposed service of either Company is economically feasible, financially sound, efficient, stable and continuing.
3. Whether either Utah Power or Raft River are physically and financially capable of providing the service proposed.
4. Whether the effect of granting a certificate to either Company would be detrimental to either as existing suppliers.
5. Whether Raft River and Utah Power have established a ratio of debt capital to equity capital which render each or either of them financially stable and whether the financing proposed by each Company is in the public interest.
6. Whether the public interest and welfare of the general public in the State of Utah and public convenience and necessity require the location of Magnesium Project's electrolytic complex on the shores of the Great Salt Lake.

Box Elder County

In analyzing the record on need, it is readily apparent that both Companies directed testimony and evidence to three principal areas: first, to their existing consumers and contended present service areas; second, to what became

known as the "Hansel-Curlew area" and the alleged needs of agricultural and residential consumers therein; and third, to potential industrial consumers in Box Elder County.

The record shows that in 1940 Raft River commenced its operations in Utah and served rural customers north of the Raft River Mountains until 1946 when it extended lines to the south and in 1952 began serving in the Grouse Creek area. A high percentage of its present electric load is irrigation pumping. This has both beneficial and detrimental significance as we shall analyze when considering its financial structure. However, it is clear from the record that a significant number of consumers in Box Elder County, Utah, rely upon Raft River for their electric requirements. These consumers, shown in Exhibit No. 101 to be 185 in number, reside in areas of low population density. Raft River has extended service to most customers desiring its service and has attained a high degree of customer satisfaction as testified by several public witnesses. We find that Raft River's service to its present consumers is reasonably adequate and need has been shown for this service to continue.

In its Amended Application, Raft River described what it considered to be the area in which it ". . . now operates and maintains a distribution system in . . . the West part of Box Elder County, Utah. . . ." The area within which this Commission finds Raft River has been serving we shall later delineate, but we do find here that Raft River has a statutory right and has lawfully assumed a utility obligation to serve its customers within a basic described area. We also find that need has been established for use of electric power and energy within this area.

Utah Power, in like manner, adduced testimony and evidence to satisfactory service being rendered its present consumers in Box Elder County, 4,764 in number, and the need to continue to render this service. Mr. James C. Taylor,

Utah Power's Commercial Manager, testified generally as to this. Mr. W. A. Robinson, as an expert electrical engineer in regulatory matters, testified that he knew of no present deficiencies in Utah Power's system or of any reason Utah Power was unable to continue rendering satisfactory electric service to its present and future customers in Box Elder County.

A need having been shown, we find Utah Power should be certificated to serve its present and future customers within an area which will be hereafter more fully delineated and defined.

In considering Hansel-Curlew, the Commission notes the fact that evidence in the Box Elder portion of the application was not originally presented concerning any need in these areas of the County. Raft River proceeded with its case-in-chief and at its normal conclusion requested leave of the Commission to present additional testimony and evidence concerning this area of the County.

Exhibit No. 6 introduced by Raft River is a Geological Survey print entitled "Brigham City". This Exhibit shows geographically "Curlew Valley" and "Hansel Valley". Both Valleys are in the northeastern limits of the area sought to be certificated by Raft River and the Valleys are separated by the Hansel Mountains which run generally Southwest to Northeast. Several days of this hearing were devoted to the Hansel-Curlew controversy and the record is voluminous.

Raft River introduced Exhibit No. 46, an engineering study testified to by its consulting engineer, Mr. Liquin, concerning the economics of its proposed extension to serve customers in the Hansel-Curlew areas. The facilities proposed to be constructed in these areas would cost approximately \$442,500 as shown by Page 2 of Exhibit No. 46. Exhibit No. 46-A was a study map which shows that Raft River must construct 35 miles of 69 kv transmission lines from its Bridge substation in Idaho to a proposed substation which would be called the Curlew

substation. Exhibit No. 46-A also names 14 proposed customers to be served if the Commission allows this extension, which would cost \$212,500, as shown by Exhibit No. 46. Raft River's nearest existing customers to this area are located generally along Highway 30S, west of Snowville, Utah, and nine miles north of the proposed Curlew substation.

Mr. Liquin testified that the load carrying capability of Raft River's existing power line between Strevell and Snowville would not accommodate additional loads and that system improvement was necessary for facilities to serve Raft River's customers west of Snowville.

On cross-examination, Mr. Liquin testified that improved service to existing Raft River customers could be satisfied at far less cost by simply constructing an additional 34.5 kv line between Bridge and Strevell. This, he said, would provide 90 per cent more capacity in the 34.5 kv line than presently exists in the 24.9 kv line or a 190 per cent increase over the present available capacity. This testimony raises a question in the Commission's mind as to the validity of the \$442,500 figure previously testified to by Mr. Liquin as necessary to improve the service of existing customers. When Exhibit No. 46-A is studied, it is obvious that if improved service only were to be provided by the 69 kv line and proposed Curlew substation such facilities would not be constructed in the manner proposed, nine miles to the south of existing customers to be served.

From this evidence alone, we are forced to conclude that the additional investment for the Curlew substation and 69 kv line is substantially for the purpose of serving the proposed new customers. This conclusion is borne out fully on careful examination of Exhibit No. 83, which is Utah Power's cost study for electrical service to customers in Box Elder County. This study contains a review of Raft River's Exhibit No. 46 with certain cost reconstructions and an analysis of

Utah Power's cost to serve these proposed customers.

Utah Power presented testimony and evidence on its customer contacts in the Hansel-Curlew areas, Exhibit No. 61. Mr. Taylor testified concerning these contacts and the expressed desire of consumers to receive electric service.

We find that need has been shown for service in these areas.

Utah Power's facilities in the Hansel-Curlew area are set forth on Exhibit No. 71. It is significant to note that Utah Power has three existing substations proximately located to the customers proposed to be served, designated as Snowville, Blue Creek, and the Promontory substations. Mr. Radford testified that Utah Power's lines and substations were adequate to serve existing customers and in addition had idle surplus capacity that could be put to beneficial use in serving new customers. Exhibit No. 83 shows that Utah Power's cost to serve in the Hansel-Curlew areas is substantially less than Raft River's cost to serve those areas.

In the case of Raft River, Mr. Liquin testified that its capacity into the area was completely utilized and that in order to serve in Hansel-Curlew, Raft River would have to construct 35 miles of 69 kv line and a substation. It will cost Raft River approximately \$442,500 to provide capacity into the area whereas Utah Power's existing facilities have sufficient idle capacity to adequately supply the area from which service lines could then be extended. From the proposed substation at Curlew, Raft River estimated, as stated above, it would have to construct service lines at a cost of \$212,500. Utah Power's service lines were estimated to cost \$333,150, at page 2 of Exhibit No. 83. Mr. Radford testified as to an increase in this estimated cost but it did not significantly affect the comparison of costs between Utah Power and Raft River.

Utah Power's reconstructed cost of the Raft River proposal reflecting costs allocable to service to new customers increases Raft River's costs to about

\$600,000 or in excess of \$200,000 more than Utah Power's costs.

Upon review of all evidence, we find that the dollar investment for extending service to customers in the Hansel-Curlew area is less under Utah Power's proposal than under Raft River's. We do not mean to imply that this finding should control a decision determining which Company should serve. Cost is only one factor to be taken into account with respect to feasibility in a certificate proceeding, as are the rates to be charged. Evidence on rates is material only to show that cost of extending service will be recovered, and that the rates are reasonable.

Other considerations such as the proximity of lines and facilities to the load to be served, reliability of power source, and better or more complete and efficient utilization of existing plant are all items of which this Commission must properly take note, and we do.

Exhibits No. 69, 70 and 71 show clearly that Utah Power is more proximately located to the greater majority of proposed new customers than is Raft River. Exhibit No. 71 shows Utah Power's existing substations from which service to these customers can be extended and Exhibit No. 70 graphically shows the additional 35 miles of transmission line that must be constructed by Raft River if it is to serve. Mr. James C. Taylor testified that Utah Power's existing facilities in purpose and function will be duplicated if Raft River's extension is permitted.

The Commission for all these reasons finds that the Hansel-Curlew area and its customers will be best served and the public need and convenience will be most efficiently satisfied if Utah Power is allowed to extend existing facilities to accomplish the service, and we will later delineate service boundaries.

The Commission feels constrained to observe again that most, if not all, of the evidence concerning Hansel-Curlew was developed by both parties only in the terminal stages of the Box Elder portion of this proceeding. Most customer

contacts made by both companies occurred while the case was in progress and the Commission has found the customers in this area of Box Elder County need and require electrical service. It will be incumbent upon Utah Power therefore to pursue its plans and diligently extend service to those needing and requesting service and develop the area in question to its maximum potential which we find to be in the public interest.

The third and last area in which testimony and evidence was adduced concerning need relates to the industrial potential of the County and the service requirements of industrial customers. Raft River presented evidence and testimony concerning its proposals to serve Lithium in the vicinity of Promontory Point, Dow Chemical Company on the north of the Lake, Signal Oil Company in concert with Mr. James Macey, at or near Lakeside, and Magnesium Project at locations near Olney, the Box Elder County - Tooele County line, or at Timpie in Tooele County. Even as the final stages of Raft River's case unfolded, these were the only industrial consumers that Raft River proposed to serve. The potential industrial consumers would use power for mineral extraction from the Lake and for the ultimate production of various chlorides, magnesium and lithium and perhaps related mineral processing.

Following cross-examination, however, the thrust of Raft River's case concerning this industrial potential was materially altered. Mr. Frank Allen, who on direct examination testified concerning Signal Oil Company's interest in Lake Front development, on cross-examination testified that Signal had disposed of its interests in Box Elder County and had no present plans for any Lake front development.

Mr. Feltenstein, President of Lithium, who had earlier indicated an interest in negotiating with Raft River for electrical power and energy in Box Elder County in the vicinity of Promontory, on cross-examination stated that his Company had determined to negotiate an electric service contract with Utah Power. Raft River thereupon amended its Application and excluded from it a request for certification in

part of the Promontory area.

Mr. Taylor testified that electric service proposals had been given by Utah Power to Dow Chemical Company, Exhibit No. 63, and to the Magnesium Project, Exhibit No. 64. Exhibit No. 85 is a comprehensive existing and proposed Lake front power line plan prepared by Utah Power and testified to by Mr. Davis. Mr. Davis testified that this Exhibit was prepared from previously existing Company plans and maps and shows existing Utah Power investment in Box Elder County to be \$15,498,527. Mr. Davis also testified as to the total Lake front development plan of Utah Power which is contemplated to be a loop-type system. This is more dependable and provides greater continuity of service than the radial-type system contemplated by Raft River. The Exhibit indicates a substantial expansion of facilities on the West and North sides of the Lake and these facilities, when combined with the vast system already existing on the East, creates a complete and comprehensive transmission and distribution system ample to provide adequate and reliable service for all existing users and the potential industrial customers that may locate at any site on the shores of the Lake.

We have here deviated from the Box Elder portion of these findings and have done so because of the need for a comprehensive and unified plan for electric service to the entire Lake front area and we find that Utah Power's plan will best serve the public interest and provide a continuing and stable source of power to accommodate all potential industrial customers who may hereafter locate on the shores of the Lake.

Mr. Davis testified that if Raft River power lines were extended from Idaho they would duplicate in purpose and function existing lines and facilities of Utah Power already located in Box Elder County.

Exhibit No. 85 also illustrates the projected Utah Power lines to

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Exhibit No. 85 also illustrates the projected Utah Power lines to

be constructed including the years to and following 1972 and results in a total contemplated investment of better than \$160,000,000 in transmission and distribution lines alone. There was also a great deal of testimony and evidence on power supply for industrial development generally and specifically Magnesium Project. Raft River's testimony and evidence indicates such supply would come from BPA. Utah Power introduced many exhibits which will be discussed hereafter concerning the alleged inadequacy of this power supply.

We shall later make findings concerning the sufficiency of both the Raft River and Utah Power electrical systems as they relate to the feasibility of all service proposed and their power supplies.

We here find, however, that Raft River has not established a need or demand for its electrical service to any large industry proposing to locate in Box Elder County and there is no evidence to show that such loads exist within the confines of the county. Raft River also failed to show that it has a firm power supply to serve any customers beyond the limitations referred to in its supply contract with BPA. This does not necessarily mean that Raft River might not undertake to find additional power supplies from some other source including its own production or additional supply from BPA.

Raft River, then, has not demonstrated the essentials necessary and required on which this Commission could base proper findings in order to grant it the authority sought to serve large industrial loads.

Utah Power on the other hand has shown through exhibits previously referred to that it has a Franchise to serve electrical requirements of consumers in Box Elder County which it has been doing as a public utility for many years. Exhibit No. 85 shows its present and proposed facilities which will encircle the Lake. On the east of the Lake, its lines extend down Promontory Point and to the north and

northeast of the Lake, and in Hansel-Curlew, its lines are constructed. On the west side of the Lake, it has a proposed service to American Telephone and Telegraph Company and south of that location has existing facilities to Lakeside. It is not the policy of this Commission to disrupt existing suppliers and displace their service or proposed service by allowing competitors to extend into areas they can serve. No evidence has been presented showing Utah Power's service or contemplated service is inadequate or that its rates are unreasonable. The only unserved customer on which testimony was adduced in this proceeding, located on the west side of the Lake and not being presently served, is A.T. & T. for its proposed installation south of Locomotive Springs and illustrated on Page 1 of Exhibit No. 85. Mr. Taylor testified concerning the A.T. & T. request for service.

We find, therefore, with respect to this area that Utah Power has shown that present and foreseeable future needs are such as to justify this Commission in awarding a Certificate of Public Convenience and Necessity to Utah Power for all classes of electrical service. We find also with respect to that portion of Box Elder County east of and including the Promontory Mountains, and the east side of the Lake, that consistent with our previous findings, Utah Power has demonstrated a need for its service to Lithium and the general public within these areas. We have already found Utah Power should serve in Hansel-Curlew which extends to the shores of the Lake and in like manner on the West side of the Lake.

Mr. Feltenstein testified that Lithium was already receiving power and energy from Utah Power, and its lines and facilities as set forth on Page 1 of Exhibit No. 85 are proximately located to the contemplated Lithium development. This particular area of the County was voluntarily abandoned by Raft River when it amended its Application and determined it would no longer pursue its efforts to serve Lithium. All of these areas will be combined in a legal description hereafter set forth.

The record shows that both Raft River and Utah Power can secure financing to service existing and proposed consumers in Box Elder County, and we so find.

It is incumbent upon this Commission to make findings on whether Raft River or Utah Power will have the physical and financial capability to serve the electrical requirements of their present and future consumers efficiently and continuously. In essence what we must find is whether both companies will be able to satisfy the duties and obligations of electrical corporations and public utilities in this State on a continuing basis.

Taking first the case of Utah Power, it is apparent from the record that the Company is one of substantial financial strength and ability. Its balance sheet and statement of income, Exhibits No. 86 and 87, demonstrate its cash position and financial standing and show it to be a company with assets in excess of \$350,000,000. Mr. Anderson testified concerning the Company's physical plant capability which indicates a sound and diversified approach in supplying the electrical requirements of its consumers, both present and future. Exhibit No. 78 shows Utah Power's main transmission system and plant capability and reserve. Its total firm capability is close to a million kilowatts which is composed of steam and hydro generation together with firm power supply contracts with other companies. Such diversity is of extreme importance in providing a continuous and stable electrical power and energy supply.

We need not elaborate on our familiarity with water problems, which we who live in so arid a country as Utah must recognize. In good water years and bad, the amount of hydro generation can vary greatly and notwithstanding the part of the country from which hydro power originates, water year variations are ever present. A growing electrical public utility in this day and age, with ever increasing

dependence of the general public upon power, can ill afford to rely only on hydro power for its generating source. It was testified, however, that hydro is an economical source of power and so to the extent that proper balance can be achieved in combination with the more firm sources of power, it should be utilized.

Exhibit No. 78 shows that Utah Power relies on its own hydro to the extent of supplying ten per cent of its total capability and has a firm power contract with the Idaho Power Company for an additional one hundred fifty thousand kilowatts of hydro power. Less than thirty per cent of Utah Power's peak load is supplied through these hydro sources. Better than two-thirds of its capability is provided through steam plants, which enable a continuity of service with great dependability.

A number of these plants are located in the State of Utah and taxes derived by the State from their operation are shown on Exhibit No. 58. The public of this state as a whole derives great benefit from this industry which contributes a broad tax base and it is proper that the entire public should be considered in a case such as the instant proceeding. See In Re Garrett Freight Lines, 31 PUR 3d 480. Taxes paid and economic considerations affecting the general public should also be properly considered by this Commission. Mulcahy v. Public Service Commission, 117 P.2d 298.

Utah Power also has additional steam generation plants under construction. Two hundred twenty thousand kilowatts of capacity is scheduled for service in 1968 and three hundred thirty thousand kilowatts of capacity is scheduled for service in 1971. Mr. Anderson testified as to Utah Power's many power pool interconnections. These are impressive in determining the stability and continuity of service the Company is able to provide. Its lines and facilities as shown on Exhibit No. 85 are proximately located to the lake and to all new customers shown to require electrical service in Box Elder County.

We find then that Utah Power has the physical and financial capability to satisfy the needs of its customers, present and proposed, and that the service proposed is efficient, stable and continuing.

The basis for such finding is consistent with our decision In the Matter of the Application of the Mountain Fuel Supply Company, Case No. 5652, issued March 23, 1966. Our decision in that case was sustained by the Supreme Court in Utah Gas Service Company v. Mountain Fuel Supply Company and Public Service Commission of Utah, 422 P. 2d 530. Illustrative of this position is the following language of our Court:

"In addition to the foregoing disposition of the critical issue in this case: the plaintiff's contention of preference based on the prior order, these further observations are pertinent; as between rival applicants for the right to render such a service, the Commission must take into account not only the advantage it would be to an applicant such as plaintiff to enlarge its operation, but its higher duty to appraise all of the aspects of the public interest as stated above, including which proposal gives the best prospect for the institution and maintenance of an efficient, stable, continuing and economical service. Important here is the fact that the defendant Mountain Fuel Supply already has a supply of natural gas in a pipeline which passes within about a mile of Bonanza, which advantages the plaintiff does not possess." (Emphasis supplied.)

The record before us does not show a favorable picture on Raft River's power supply and, therefore, its continuing ability to serve. Raft River appears to rely entirely on BPA for its source of power. Exhibit No. 9 is the contract evidencing this relationship. The Contract limits the duty of BPA to deliver power to Raft River at Minidoka over facilities owned by the Government and it provides for such delivery at only "34.5 kv voltage." The evidence shows clearly and we find that BPA through the "Government's facilities" does not have lines and facilities over which to deliver power and energy to Raft River at Minidoka to enable Raft River to expand its services and thereby satisfy fully the obligations of an electrical

corporation and public utility in the State of Utah. Mr. Roach, Chief Executive Officer of Idaho Power, testified as to his company's willingness to wheel power to Raft River from BPA not in excess of Raft River's normal estimated load growth requirements (approximately 6 per cent to 7 per cent annually). This would not contemplate the possibility of large industrial consumers.

Exhibit No. 99 shows existing government power plants and Mr. Bryner testified as to power deficiencies of BPA through Exhibit No. 100.

Mr. Schlender testified that Raft River owns neither transmission lines nor substations in the State of Utah and although these facilities may be capable of construction, the lack of such facilities is not indicative of a company possessing a physical ability to render an expanded efficient and continuous firm electrical public utility service for all classes of customers. Present voltage deficiencies were noted by Mr. Liquin, Raft River's consulting engineer, but Raft River appears to have the ability to correct these conditions.

In conclusion, we now turn to the financial stability of the rival applicants. It is provided in 1953 UCA 54-4-25 (4):

"Every electrical corporation, save and except those applying for a certificate to serve only the customers served by applicant on the effective date of this act, applying for such a certificate shall have established a ratio of debt capital to equity capital or will within a reasonable period of time establish a ratio of debt capital to equity capital which the commission shall find renders the electrical corporation financially stable and which financing shall be found to be in the public interest."

This section of the statute imposes upon the Commission an affirmative duty to make a finding on the equity position of any public utility applying to serve the public generally, as that position relates to the financial stability of the company in question.

We observed In the Matter of the Application of Dixie Rural Electric Association, Case No. 5663, that this statute ". . ." requires the Commission to

deny a certificate to a public utility where the debt component of its capital structure is excessively high in relation to the total."

In that case, we found a debt ratio of 94.5 per cent to be too high and denied a certificate partly because of this "unsatisfactory" debt ratio. The equity ratio of Raft River in the instant proceeding as of year end 1966 was 19.1 per cent of total capitalization, Exhibit No. 117, thereby making its debt ratio 80.9 per cent.

Utah Power's evaluation of Raft River's equity position projects equity at some 13 per cent of total capitalization in 1974 declining from a 19.1 per cent equity position in 1966. This compares to Raft River's Exhibit No. 17 projection which estimates equity will achieve a 30 per cent position in 1974.

The only testimony in the record relating to the level of equity to be attained so as to render an electrical public utility financially stable was adduced from Mr. Hoskins, a CPA employed by Utah Power, Mr. Broussard, Financial Vice President of the Company, and Mr. John Langeland, Senior Vice President of Zions First National Bank. All three testified that Raft River's equity position did not render it financially stable, and Mr. Langeland and Mr. Broussard considered close to the 40 per cent range to be essential. Mr. Langeland testified this was particularly true in the case of Raft River because such a high percentage, 77.3 per cent of its revenue was derived from irrigation pumping which varies substantially with precipitation differences.

Mr. Schlender, Raft River's manager, testified that Raft River's operating expenses exceed its revenues for approximately six months each year, the Company relying on summer months' irrigation revenue to sustain the average annual cost of service to all customers. The Exhibits and testimony which show the effect of these fluctuations in revenue are 92, 118, and Page 2 of Exhibit No. 120.

Looking at Exhibit No. 118, it is apparent Raft River's margin as a percentage of revenue has widely fluctuated from year to year. Even the year 1967,

Exhibit No. 149, shows Raft River expense increasing at a faster rate than its revenue. Exhibit No. 118 indicates that in the relatively short period from 1960 through 1964, the margin has varied from a negative position to a high of 16 per cent. In 1965 because of a dryer than average year it jumped from approximately 13 per cent to 22.5 percent.

This Exhibit shows visually the extremely high leverage Raft River's irrigation load has on its total operation as testified by Mr. Langeland who expressed concern over this part of Raft River's business. Mr. Schlender sees this problem when he testifies of his desire to improve system load factor by assuming service to industrial loads. No evidence was presented, however, as to whether such loads would improve or impair this already over-balanced system loading between summer and winter seasons.

Raft River evidence on financial stability was largely confined to the testimony of Mr. Gerald Diddle and Mr. Joseph Vellone, both employees of REA. These gentlemen testified that the equity position of the Company was not a significant factor to be taken into consideration in determining financial stability because stability was more properly determined by many other considerations including the willingness of REA to loan money. Mr. Vellone said that equity position was not a factor given heed by REA.

The Commission notes that although REA may not regard the equity position of a company as being a significant factor in determining financial stability, the Utah Legislature has taken a different position and has so directed.

Mr. Bryner made statistical reviews of REA cooperatives through Exhibits No. 93 through No. 97 all of which show many financial comparisons of Raft River with the "average cooperative" in the United States. Exhibit 95 shows the effect of REA abandoning its 40 per cent equity requirement before a cooperative

would be allowed to make consumer patronage refunds. Exhibit No. 121 is a report prepared by the National Rural Electrification Cooperative Association which also discusses to some extent the characteristics of financial stability.

Of further significance, the term "financial stability" itself is used in the cooperatives' own Association report and discusses financial stability in terms of an equity position approximating a 40 per cent level. The report relates, as testified by Mr. Broussard, to a proposed supplemental financing bill encouraged by REA borrowers in the last session of Congress in an attempt to secure Congressional approval for funds to assist the REA program.

This Report states at page 25:

"With the future demand for capital funds expected to increase, it may be anticipated that the REA borrowers will be severely restricted unless some effective steps can be taken to obtain capital in more adequate amounts and on terms that will not hamper the systems in the achievement of their objectives of area coverage and parity service."

Again at page 31:

"However, the Congress, particularly in recent years, has not been providing an adequate quantity of such capital to finance facilities for the growing rural needs for power. In addition, increasing limitations have been placed upon the use of such capital as has been provided."

This in and of itself is somewhat contradictory to the testimony of Messrs. Diddle and Vellone who testified that in their opinion financing would continue to be available to Raft River from REA.

Naturally this Commission is obligated to take notice of the fact that except for equity provided by its consumers and perhaps short term bank borrowings, present Raft River financing is entirely dependent upon appropriations from Congress, the stability of which REA borrowers, as seen in Exhibit No. 121, seriously question themselves. This concerns us in view of the fact that Mr. Langeland has testified Raft River could not qualify for a conventional bank loan.

But the significance of Exhibit No. 121 is the corroborative effect which it has on the desirable 40 per cent equity level testified to by both Mr. Langeland and Mr. Broussard. The following excerpt from page 21 of the Exhibit relates to "Net Worth or Member Equity":

"The first test to be applied is concerned with a determination of the amount of net worth or member equity which may be regarded as proper for an electric system.

"About 40 per cent of the capital structure has generally been considered a suitable level. However, there is no firm opinion on this matter. Various experts have made recommendations ranging from 40 to 50 per cent.

"According to the Kuhn, Loeb report, the legal investment requirement for many institutional investors is that a company's long term debt cannot exceed 60 per cent of total capitalization in order to obtain financing. In other words, net worth or member equity should not be less than 40 per cent." (Emphasis supplied)

This is one of the critical factors REA borrowers themselves utilize in assessing financial stability and is completely consistent with the only testimony on the subject in the record before us.

Certain Raft River witnesses, notably Messrs. Diddle and Vellone, testified as to the different character of a rural electric cooperative from the investor type utility, but Raft River did not present evidence upon which this Commission could base a finding that Raft River had attained an equity position which rendered it financially stable.

We have noted that there is considerable evidence to the effect that an equity ratio of 40 per cent would render Raft River financially stable. We do not consider it essential to make a finding to the effect that a specific equity ratio would be desirable or necessary for Raft River. The statute quoted above does not set forth any standard for the Commission to follow or apply in determining what is a satisfactory ratio of debt capital to equity capital. The statute simply requires that a ratio be established, presently or within a reasonable time, from which the

Commission can base a finding as to financial stability. The Commission must, therefore, resolve this difficult aspect of the case by exercising its best judgment and expertise. The Commission finds, after most careful consideration of the evidence, that Raft River's present equity position renders it sufficiently stable financially to warrant the issuance of the certificate of convenience and necessity covered by our order below. We find, further, that the present equity position is inadequate to render Raft River sufficiently stable financially to undertake service to large industrial loads such as that contemplated by Magnesium Project.

Under the public utility laws of this State, each public utility must stand squarely on its own feet financially. The utility has an obligation under a certificate issued by the Commission to serve its certificated area adequately and efficiently under reasonable rates, rules, and regulations. This responsibility rests upon the owners of the business and, through the owners, upon management. In a cooperative enterprise such as Raft River, the ratepayers are the owners and such owners have a voice through the duly elected board of directors and management in respect to financing of the enterprise. The Commission emphasizes the provision in the statute which enables an applicant for a certificate to show either that it has attained a suitable equity position "or will within a reasonable period of time" establish one. We believe that Raft River should consider seriously taking appropriate steps to improve its equity position and particularly to prevent the present position from deteriorating.

Utah Power's evidence shows that it has achieved an equity position which renders it financially stable and Messrs. Hoskins, Broussard and Langeland so testified. No contrary testimony was adduced and the Commission therefore finds that Utah Power has attained an equity position in excess of 40 per cent and such position, together with other essentials heretofore discussed, renders the Company financially stable.

TOOELE COUNTY

Our preceding findings to great extent dispose of many issues before us in Tooele County. The record shows that Utah Power presently holds a Certificate of Public Convenience and Necessity to serve in the County of Tooele, Exhibit No. 55. There were no witnesses who testified that Utah Power's service was not adequate and Mr. Oran E. House of International Smelting and Refining Company testified on behalf of that Company's industrial service that "We are entirely satisfied with their service."

In addition to issues noted, we have the ultimate issue of public interest to determine here which involves the entire public of the State, its growth and economic prosperity. It is our duty under the law to foster and encourage this as has been recognized and directed by our Supreme Court in its many decisions and as illustrated in Mulcahy v. Public Service Commission, supra.

Magnesium Project, in the reopened hearings, presents compelling evidence in this direction.

We have carefully studied the record and have gone to the extent of reopening the hearing on our own motion in order to achieve within the limits of our authority what we consider to be paramount in our duty of finding what would achieve public convenience and necessity and the means of implementing these findings in attaining that objective.

In assessing the element of need, we have cautiously taken into account certain rate considerations, and propose to order certain rates which we find are proper, fair, and reasonable and will be in the public interest. We have done this after notice and because of the urgency and extreme necessity to preserve for our State the economic benefits of perhaps our only remaining and yet untapped or undeveloped natural resource. This we see as our statutory duty.

Industrial Development in Public Interest

Public convenience and necessity, the public interest and the welfare of the State of Utah as a whole dictate and require that Magnesium Project be enabled to locate its plant on the Great Salt Lake and that a chemically related industrial complex be located on and around the Lake. This is the only facet of this highly controversial and protracted case with which all parties agree.

Statistician, Iver E. Bradley, in Exhibit No. 140 indicates that the permanent addition of a \$3,230,000 annual payroll would have a total annual income effect on the Utah economy of \$6,760,000. He said this payroll would generate approximately \$338,000 annually in additional sales and income taxes over and above those taxes paid by Magnesium Project and that during the construction period \$15,000,000 in wages will be paid to construction employees.

Utah Power's witness, Professor Roger H. Nelson, testified through Exhibit No. 160 that benefits in addition to the above will occur if Utah Power provides the service. He said a 1.8 million dollar annual increase in household income will be generated and business income will increase \$4,447,431 annually. The witness testified that the increased income effect on the State if Utah Power provides the service will exceed \$6,225,080 annually. This sum when combined with that amount testified to by Mr. Bradley results in a total cumulative effect on the Utah economy of \$12,960,000 annually.

R. Sterling Halladay, Tooele County Commissioner, and Mr. Thayne Robson, Professor of Economics and Finance at the University of Utah, also testified and urged that we most seriously consider the many benefits of the Magnesium Project to the State. Other witnesses, notably County Commissioners, attested to the importance of new industry to the economy of the particular areas they represent.

The Managing Director of Magnesium Project, Mr. Alvin G. Ash,

supplied specific information to support the testimony of these and other witnesses. Through Exhibit No. 132 he said the Project would employ 320 persons and that there would be an annual payroll of \$3,356,400. Exhibit No. 133 shows the Project would have a total annual expenditure of \$4,391,880 for supplies and equipment and that \$3,231,000 of this amount would be spent in Utah.

Walter G. Smith, Director of the Utah State Industrial Promotion Board, testified to the State's need for new industry. He said our economic growth in the past has been due in large part to Government projects and indications are that this employment will decrease and cannot be relied upon to continue at its present level.

We find from the foregoing that it will be highly beneficial to the public welfare and to the interests of the people of the State of Utah and consonant with public convenience and necessity, for Magnesium Project to be enabled to locate its plant on the Great Salt Lake in the State of Utah.

Power Supply

Having found the Project so inimitable to the interests of our State, we must next see if we can find the existence of an efficient power supply to accommodate its location, growth, and development.

Raft River's Manager testified that Raft River is dependent upon Bonneville for its supply of power and energy. Much testimony and evidence have been adduced regarding Bonneville's ability to deliver that power and energy to the Raft River delivery point at Minidoka, Idaho, and we detailed this previously in our Box Elder findings. We again review the subject because of its extreme importance and direct application to this part of the case.

Bonneville for many years has supplied Raft River's electrical requirements from Bureau of Reclamation plants located in Southern Idaho. This source

is utilized to its maximum potential. Robert E. Lee, the only representative of Bonneville appearing before us, has testified that service to Raft River is dependent upon the ability of Bonneville to deliver power from the Bonneville grid in Oregon, Washington, or Montana or from possible future generation projects in Southern Idaho, as indicated by Table 4 of Exhibit No. 147, an official Bonneville study. Mr. Anderson, by mathematical computation on Exhibit No. 166, showed such plants, even if their construction were authorized by Congress, would be insufficient to satisfy Magnesium Project load for the next ten years.

This study, Exhibit No. 147, also discusses the power supply on the main Bonneville grid and at Page 10 states:

"By the mid 1970's, there will be insufficient hydro constructed to meet base energy load in the Pacific Northwest."

And at Page 28:

"As the Pacific Northwest shifts from a hydro to a combination thermal and hydro system, the responsibilities of the Federal government are changing. The Federal government does not propose to build any of the new thermal plants which will start to carry the base energy load in the mid 1970's."

.....

". . .the role of the non-federal utilities in the Pacific Northwest will be to construct the new thermal plants. . . "

Table 4 of Exhibit No. 147 estimates Bonneville's assumed obligation to supply power and the resources available to it. With regard to the power supply for additional industry to be served, footnote 3 provides such industry is to be:

"Served from assumed BPA share of thermal generation from first six nuclear plants."

Mr. Anderson through Exhibit No. 165 said that for critical water years, Bonneville was deficient under its own forecasts and studies for 18 of the next 20 years. This is further substantiated by that part of Exhibit No. 124, prepared by Bonneville, which states:

". . . By Fiscal Year 1972, if critical hydro conditions should occur, BPA will be forced to curtail some of the firm power sold under recent contracts with its newest industrial customers, and, in addition, 1,132,000 kilowatts of interruptible power."

From this evidence, and as we have already observed earlier, we cannot make a finding that Raft River has a power supply from Bonneville to satisfy Magnesium Project and we find that Raft River's ability to secure power for the Project from this source is at best speculative.

Even assuming Bonneville could supply power from its Northwest "grid" there is a question as to how the power can be transmitted to Raft River's point of delivery at Minidoka. Mr. Lee said an attempt would be made to negotiate with Idaho Power to use that Company's existing transmission facilities to transmit the 80 megawatts to Minidoka. He said that if Idaho Power would not agree to wheel the power, Bonneville would then have to make a feasibility study to determine whether federal lines could be constructed to transmit the power, and if the study showed feasibility, appropriations would then be sought from Congress to authorize construction. But Mr. Lee further testified a feasibility study had not been made by Bonneville at the present time and that such a study was requisite to seeking an appropriation.

The matter of federal line construction raises numerous conjectural problems. First, a feasibility study must be made by Bonneville. Second, assuming such study shows feasibility, Bonneville must then determine whether or not it will seek an appropriation to construct such a line and third, Congress in its wisdom and discretion must determine whether it will appropriate the monies to enable such construction.

Mr. Bryner testified to lack of feasibility for such a line and Exhibit No. 175 is his feasibility study of a federal transmission line from the main Bonneville grid in the State of Oregon to Minidoka, Idaho. The study shows con-

struction of such a line would not be feasible.

It is not within our province to make a finding, and, therefore, a determination as to whether construction of a federal transmission line by Bonneville is feasible or is not feasible. The fact remains, however, that the only evidence in the record before us is to the effect that such construction would not be feasible.

Congressional Committee reports were introduced and inference was raised that Idaho Power was willing to wheel power for Bonneville to serve Magnesium Project's load. However, Mr. T. E. Roach, Chairman of the Board and Chief Executive Officer of the Idaho Power Company, testified that his Company was completing its wheeling negotiations with Bonneville. He said Idaho Power would wheel for the normal load growth of preference customers (6 to 7 per cent annual increase for Raft River), but stated categorically that Idaho Power would not wheel Magnesium Project's requirements.

We cannot find testimony or evidence upon which we can base a finding that Raft River has the ability to secure delivery of power from Bonneville for Magnesium Project or other large industrial loads.

We do find that now and for the foreseeable future Raft River does not have a present and continuing ability or an efficient, stable, or continuing source of power and energy to supply the electrical requirements of Magnesium Project or other large industrial consumers within its proposed service area.

Exhibit No. 55 shows that Utah Power holds a Certificate of Public Convenience and Necessity to serve power and energy in Tooele County. Magnesium Project's Manager has testified to an awareness of Utah Power's Certificate. No evidence was presented nor is the Commission aware of any deficiencies in Utah Power's service or of any inadequacies in that service, or of any reason why it should not be allowed to extend its facilities to serve the Magnesium Project load and other

industrial loads that may develop in the complex around the Great Salt Lake. Exhibit No. 85 shows the existing and proposed Lake front transmission and distribution lines of Utah Power which are impressive, ample, and proximately located to the Magnesium Project site. Exhibit No. 176 further attests to the facilities and resources of Utah Power and shows its ability to provide all required electrical service.

We find from the foregoing that Utah Power is able to provide a present, continuing, efficient, and stable source of power and energy for Magnesium Project and other Lake front industries.

Power Need Imminent

Many assertions and inferences are in the record concerning the incertitude of this development if it cannot go forward at the present time. As we have previously found, great benefits will accrue to the State of Utah from Magnesium Project and Mr. Ash says we can be only two years away from receiving them. When questioned regarding the start up date he replied:

"A That is the state that is reached immediately after the plant goes on stream, in presumably twenty-four months."

And as to whether the Project would proceed:

"A I have been advised that if the power costs are satisfactory to Mr. Rowley, that the Project will proceed in the State of Utah."

"Q And that is the only factor holding up the proceeding of the Project; is that correct? "

"A To the best of my knowledge, that is correct."

Mr. Ash said that if the power question could not be worked out Magnesium Project would locate outside the State of Utah and Mr. Charles E. Carroll, an independent engineer who testified on behalf of the Project concerning feasibility, alarms us with this possibility and the necessity of Magnesium Project being able to go forward immediately if Utah is to receive the many benefits to which we have referred. Mr. Carroll tells us this:

"A. . . If I might also add a gratuitous remark, sir, it seems to me that this question that your Commission is addressing itself to also has implications in the entire magnesium business so that if magnesium plants are built elsewhere in the United States, that I think it goes to the relative feasibility of the Magnesium Project.

"I am aware of at least two other potential installations that I am quite sure will have an effect upon the planning of the Magnesium Project. Neither of these will be built in the State of Utah."

As has been asserted by both Utah Power and Raft River, the question of federal transmission line construction is a continuing subject of dispute and controversy and has been over a substantial period of time. The record shows Idaho Power has been negotiating with Bonneville for four or five years already and Mr. John Gallivan testified he supported Utah Power's position on federal line construction in Idaho as long as three years ago.

We are mindful and take notice of the fact that Bonneville transmission lines in Idaho are not scheduled for the foreseeable future. We can safely assume the question concerning whether federal lines are or are not to be constructed will remain the subject of controversy between Utah Power, Idaho Power and their supporters such as Labor and the Coal Industry on the one hand, and public power interests, including Raft River, on the other, for sometime to come and perhaps through many years of Congressional hearings and floor debates. We have already found that Raft River does not have the present ability to supply the electrical requirements of Magnesium Project. It is apparent also, and we so find, that Raft River does not have the ability in the foreseeable future to satisfy commitments it must be able to make now if it is to assume responsibilities as a public utility and electrical supplier of industrial loads in the State of Utah and of the magnitude required by Magnesium Project for its electrolytic processes.

We note also that Raft River does not have the financing from REA to construct the 230,000 volt line from Minidoka to the Magnesium Project site

in Tooele County. Exhibit No. 159 relates to the legal feasibility of this section of line and questions whether federal funds can be lawfully spent for the purposes proposed and whether the expenditure itself would be lawful and in conformity with the Rural Electrification Act, 7 USCA § 901 et seq. Again we foresee controversy and possible litigation which would delay and perhaps bar forever the location of Magnesium Project and the development of the Great Salt Lake.

This Commission cannot rest its decision of public convenience and necessity on the future actions or inactions of Congress, its Committees and administrative agencies, or on conjectures concerning construction of transmission lines, or future prognostications concerning potential resources that may or may not be developed by federal agencies over which regulatory Commissions have no jurisdiction. We are so close to having Magnesium Project, hopefully the first of many such companies, locate on the shores of our Lake that we can ill afford to lose these benefits because of the uncertainties of power supply and transmission presented to us by Raft River, when the resources of Utah Power with its strength and continuing ability to supply are at the "door" of the Project's intended site and are already in the proximity or planned for the total Lake front and these facilities are presently deployable by this Commission.

We find that Utah Power offers a present source of power and energy which will accommodate Magnesium Project in developing the Great Salt Lake and others who hopefully will locate there.

The Commission's Continuing Jurisdiction
To Attain Equitable Objectives
In the Public Interest

We repeat that Magnesium Project and a chemically oriented industrial complex around the Great Salt Lake are essential to the best interests and growth of the State and compatible with public convenience and necessity. We now turn to

the most difficult issue with which we are faced - that of determining whether we have a power supplier capable of satisfying the needs, including power cost, of Magnesium Project and future industrial customers and processors of Lake brines.

We have found that Raft River does not have a power supply to serve Magnesium Project and does not at the present time through the aegis of Bonneville have the present ability to receive a power supply for this purpose. We have further found it questionable that Bonneville has or will have an available power supply to enable Raft River to render service.

Testimony and evidence on Utah Power's proposal to serve Magnesium Project requires a most careful review and analysis. Mr. Rowley, President of National Lead, the dominant partner in the venture, has testified the Project needs power and energy at a rate not in excess of 3.2 mills per kilowatt hour before he would exercise the discretion granted him by his board to proceed with the project.

Exhibit No. 226 shows that Magnesium Project has affirmatively made a decision to go forward if it can achieve a rate of 3.1 mills per kilowatt hour for interruptible service of 80 megawatts for electrolytic process service.

Testimony and evidence of Utah Power concerning the rate offered Magnesium Project is extremely technical and understood only after a most careful and studied consideration. Utah Power's witnesses generally testified that a 5-1/4 mill rate had been offered the Project but this we note was for "firm power". Utah Power then offered, after finding Magnesium Project desired interruptible power, a 4.6 mill rate, but with that, guaranteed a high percentage availability. The availability factor should properly have been a common and vital element to be considered by all parties in their closely guarded negotiations.

In analyzing Magnesium Project testimony, Mr. Ash testified feasibility was predicated upon interruptible power and that the Project's on-site generation would give it adequate reliability without any guarantee on the

interruptible supply. His testimony follows:

"Q And is your feasibility based on the taking of interruptible power insofar as the Raft River portion of that power supply is concerned?

" A Yes.

.....

"Q Now what power reliability on interruptible power have you projected into that kind of study or conclusion?

"A I believe I have already answered that our own generation, our self-generation, gives us adequate reliability. We have no requirement for reliability over and above this 40 megawatts that we guarantee ourselves."

Mr. Ash was questioned about Magnesium Project receiving its electrical requirements from Utah Power:

"Q And with the exception of the rate, I suppose you basically have no criticism with respect to that (Utah Power's) proposal?

"A Absolutely none."

indicating that the Project would take service from Utah Power if an agreeable rate could be effected.

We find here that Magnesium Project is willing to receive service from Utah Power and will go forward on at least a 3.1 mill per kilowatt hour rate without any guarantee as to availability, and Exhibit No. 225 shows Utah Power's elements of cost including return on investment to be 4.6 mills per kilowatt hour rate with a 75 per cent guarantee of availability and 3.1 mills per kilowatt hour with no guarantee of availability.

Part of the confusion in this part of the record stems from Mr. Rowley's testimony concerning Magnesium Project's hoped for 95 per cent load factor, but load factor here does not mean firm power or guarantees of interruptible power availability. Mr. Rowley was talking of the Project's operating expectations and, as

Mr. Ash said, the on-site generation is the only power reliability needed.

We also examine here the testimony of Mr. Naughton, President and General Manager of Utah Power, who said damage would occur to the public generally if subsidized Government power were introduced into the State to serve Magnesium Project and industrial customers. He testified that Utah Power's existing rates would have to be reduced in order to meet subsidized competition if the Company is to continue to attract industry to Utah Power's territory. These damages were predicted upon the introduction into the State of subsidized Government power. This would cause a reduction in firm power rates of Utah Power, or rates based on high guaranteed availability, to a 3.1 mill level. All assumptions of this character must be viewed not as to conclusion but on their premise which we find totally inapplicable if Utah Power provides the service to Magnesium Project on an interruptible basis of less than 75 per cent availability. This conclusion is corroborated by Exhibit No. 225 presented by Utah Power in the reopened hearing. The Exhibit shows that elements of cost would compute to 3.1 mills per kilowatt hour for service provided to Magnesium Project from the Company's reserve resource capabilities with no guaranteed availability.

We note also through Mr. Naughton's testimony that Utah Power by 1971 will have a total capacity of 2,400,000 kilowatts within 10 miles of Tooele and Box Elder Counties and it presently serves extensively within both Counties. Mr. Bryner introduced Exhibit No. 176 which demonstrates the Company's ability to supply the needs of Lake front development and shows that Utah Power currently has a margin in excess of 100,000 kilowatts with additional interconnection capacity of 1,000,000 kilowatts and we have already found that Utah Power has ample resources to satisfy Magnesium Project requirements.

We attach great significance to the following testimony of Mr.

Naughton:

"BY MR. BAUCOM:

"Q Mr. Naughton, you heard Mr. Gallivan's testimony yesterday with respect to I think what he called the unwillingness or inability of the Utah Power & Light Company to serve the Magnesium Project? "

"A Yes, sir, I did. "

"Q Would you clarify for the record the position of Utah Power & Light Company with respect to its willingness to serve this customer? "

"A I don't want to repeat what I said before, but I want to make it crystal clear that the Utah Power & Light Company is ready, willing and able to serve this customer. Its facilities are within very close proximity to the customer insofar as bulk power is concerned.

I would be most delighted to attempt to negotiate to conclusion a contract to serve this customer.

As I said earlier, we have been trying for a good many years to improve the average load of our facilities through serving various classes of customers, towards the end that we are able to better load and better use our facilities, and thus give lower rates to our customers as a whole. " (Emphasis supplied).

.....

"I want to make it clear that we will be delighted to serve this customer at any reasonable rate that is set by this Commission." (Emphasis supplied)

CROSS-EXAMINATION

"BY MR. BILLINGS:

"Q Mr. Naughton, are you telling me now that the testimony you gave a week or so ago that Utah Power & Light could not serve at 3.1 mills without losing money, you are changing that now?"

"A My testimony, Mr. Billings, the other day, I think speaks for itself."

"All I have said here is that our rates are set by the Commission. I attempted to show the Commission the results of our studies, and I want to make it clear that we are ready and willing to serve this customer, and would be pleased to serve this customer, at any reasonable rate as set by this Commission." (Emphasis supplied).

Every public utility and electrical corporation must file proposed rates with the Commission for approval and the charges must be just, its service adequate and non-discriminatory, and its rules reasonable. The Commission must, in the final analysis, and in satisfying its statutory duty to the public, determine the rates to be charged. We believe from the evidence presented that Utah Power is in a position, by utilizing its available power resources, particularly its present reserves and resources available through its many interconnections, to serve Magnesium Project at a rate which will allow the Project to proceed now in the State of Utah. We interpret Mr. Naughton's testimony as affirmatively stating policy for Utah Power in this regard. We interpret Mr. Naughton's testimony and the testimony of Mr. Ash together with Exhibits No. 225 and 226 to be that the Project is willing to receive and Utah Power is willing to provide electrical service at a rate to be ordered by this Commission which will justify the Project's proceeding without further delay in the State of Utah. We find this to be the only reasonable way the Project can proceed in this State and the only way the State can receive the enormous benefits which we find can be achieved.

It is within the statutory authority of this Commission to set a rate which will be reasonable, non-discriminatory, and will not adversely affect the residential, commercial, and other industrial consumers of Utah Power, yet it will be a rate which will enable Magnesium Project to go forward now and derive for the State of Utah and its people as a whole the great economic benefits that will result from development of our Great Salt Lake.

Rate

Exhibit No. 225 shows Utah Power's elements of cost which include a reasonable rate of return on investment and computes and derives 3.1 mills per kilowatt hour for interruptible service to Magnesium Project with no guaranteed

availability to service a load of 80 megawatts.

This Exhibit shows, in the no guarantee column, however, that no charges are assigned to generating facilities which means, as explained by Mr. Bryner, that other customers of Utah Power through their rates will pay all of the costs for the generating facilities which will benefit Magnesium Project if a 3.1 mill rate is ordered. Mr. Bryner also testified that the capacity of the generating facilities would have to be available for firm customers in any event and it is apparent that Utah Power and its customers would receive the benefit of the transmission contribution by Magnesium Project to investments already made.

Our last consideration relates to the ultimate location of Magnesium Project's electrolytic facilities in Tooele County.

The location of Magnesium Project as described in the original application was changed from a site near Timpie to a point approximately 12 miles north which is within the statutory definition of the 75 mile radius of the Columbia River Drainage Basin to enable the Project to receive power and energy from Bonneville.

Mr. Rowley said the Project would move North from its original location at Timpie for this purpose. The Commission does not know whether there are technical reasons now present to require that the Project remain at this location. However, if the Project receives power and energy from Utah Power at Timpie, we can presume it could possibly save substantial money through being on a main line rail location. Also, it might be relieved of additional investment for water and gas lines and road and rail beds. The money thereby saved could be diverted to power cost without adversely affecting project viability.

The Commission, therefore, asserts and retains jurisdiction over the rate between Utah Power and Magnesium Project, as it must in any event over all

rates and services of electric utilities within its jurisdiction, and at this time finds a rate of 3.1 mills per kilowatt hour for electrical service to Magnesium Project for an 80 megawatt electrical load at the presently proposed Project site in Section 11, Township 2N, Range 8W, SLM, Tooele County, Utah, with no guaranteed availability for use by Magnesium Project in its electrolytic processes to be just, reasonable, sufficient, non-discriminatory and consonant with law. We also find that it is reasonable for availability to be determined within the discretion of Utah Power consistent with its duty to serve the public generally.

Again we recognize this rate does not include a proportionate assignment of cost to generation but we find it to be within an equitable range in balancing the equities between Utah Power, its ratepayers, its investors, consumers, and Magnesium Project, and the rate should be subject to fuel, tax, and other cost escalator provisions as are usual for that type of service.

On balance, however, we find the best interests of the public generally, which includes all of the above named, will be served by locating this facility in Utah. Consistent with our equitable powers to set and adjust rates in the public interest, in the event Magnesium Project relocates its facility to a point nearer Timpie, the Commission will assess the investment savings not only of Magnesium Project but of Utah Power and find at that time on proper application an equitable rate to satisfy all interested parties.

CONCLUSIONS

From the foregoing, the Commission concludes:

1. That Raft River should be granted a Certificate of Public Convenience and Necessity to serve all of the electrical needs and requirements of all present and future consumers who are now or may hereafter be located within the following described area of Box Elder County, Utah, to wit:

Commencing on the Western boundary of Box Elder County at the North line of Township 5 North and running thence North along the West boundary of said County to the North boundary of said County; thence East along the North boundary of said County to the East line of Range 9 West; thence South along said East line to the center line of Highway 30 South; thence West along the center line of said Highway to the center line of Range 9 West; thence South along the center line of Range 9 West to the North line of Township 13 North; thence West along the North line of Township 13 North to the East line of Range 11 West; thence South along the East line of Range 11 West to the North line of Township 11 North; thence west to a point one mile East of the East line of Range 12 West; thence South along a line one mile East of the East line of Range 12 West to the North line of Township 6 North; thence West along the North line of Township 6 North to the East line of Range 13 West; thence South along the East line of Range 13 West to the North line of Township 5 North; thence West along the North line of Township 5 North to beginning.

2. That Utah Power should be granted a Certificate of Public Convenience and Necessity to serve all of the electrical needs and requirements of all present and future consumers who are located now or may hereafter be located within the following described area of Box Elder County, Utah, to wit:

Commencing on the West line of Box Elder County at the North line of Township 5 North, running thence South to the South boundary of said County; thence Easterly along the Southerly boundary of said County to the East boundary of said County; thence Northerly along the Easterly boundary of said County to the Northeast corner of said County; thence West along the North boundary of said County to the East line of Range 9 West and thence South along said East line to the center line of Highway 30 South; thence west along the center line of said Highway to the center line of Range 9 West; thence South along the center line of Range 9 West to the North line of Township 13 North; thence West along the North line of Township 13 North to the East line of Range 11 West; thence South along the East line of Range 11 West to the North line of Township 11 North; thence West to a point one mile East of the East line of Range 12 West; thence South along a line one mile East of the East line of Range 12 West to the North line of Township 6 North; thence West along the North line of Township 6 North to the East line of Range 13 West; thence South along the East line of Range 13 West to the North line of Township 5 North; thence West along the North line of Township 5 North to beginning.

3. That Utah Power and Raft River have both received required franchises from Box Elder County, Utah, to pursue the rights and satisfy the duties provided for hereunder.

4. That in all other respects the applications of Raft River and Utah Power for certificates of public convenience and necessity should be denied.

5. That Utah Power and Magnesium Project should be directed to negotiate and enter into a contract to be presented to this Commission for approval in which Utah Power agrees to furnish Magnesium Project 80 megawatts of power and energy with no guaranteed availability at a rate of 3.1 mills per kilowatt hour delivered to Magnesium Project's site in Section 11, Township 2 North, Range 8 West, Salt Lake Meridian, and in which Magnesium Project agrees said power and energy will be used exclusively for its electrolytic processes for commercial development of the brines of the Great Salt Lake, and agrees to pay for this power and energy and the contract should contain the usual escalator provisions relative to fuel, taxes, and other rate components and the parties should agree to all other conditions normally included in such contracts.

6. That the Commission should retain jurisdiction over Utah Power's rate for interruptible service to Magnesium Project and should Magnesium Project relocate its facilities to a point nearer Timpie, in Tooele County, than its presently proposed site in Section 11, Township 2 North, Range 8 West, Salt Lake Meridian, the Commission should entertain a petition to equitably adjust, in the public interest, the rates herein set.

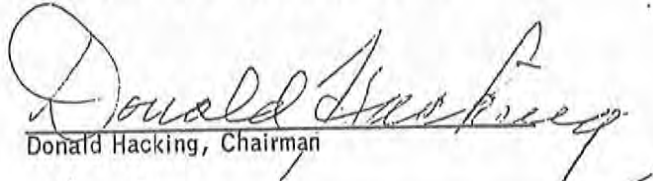
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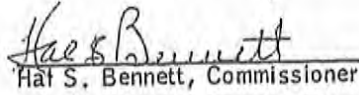
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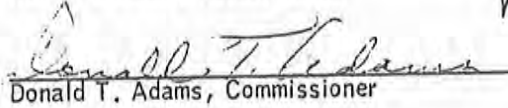
7. The Commission should retain continuing jurisdiction in the premises.

Appropriate orders will be issued.

Dated at Salt Lake City, Utah, this 19th day of April, 1968.


Donald Hacking, Chairman


Hal S. Bennett, Commissioner


Donald T. Adams, Commissioner

Attest:


C. R. Openshaw, Jr., Secretary