

HYDROELECTRIC COMMISSION OF OREGON  
LICENSE FOR PROJECT NO. 180  
THE CALIFORNIA OREGON POWER COMPANY  
A MAJOR PROJECT OF  
131,534 THEORETICAL HORSEPOWER

WHEREAS, by act of the Legislature of the State of Oregon (ORS 543.010 to 543.620 and ORS 543.990) hereinafter called the Hydroelectric Act, the Hydroelectric Commission of Oregon, hereinafter called the Commission, is authorized and empowered, inter alia, to issue licenses to appropriate, initiate, perfect, acquire and hold the right to the use of the waters within the State, including waters over which the State has concurrent jurisdiction, and to construct, operate and maintain dams, reservoirs, powerhouses, conduits, transmission lines, and all other works and structures necessary or convenient for the use of such waters in the generation and utilization of electricity, and to approve maps, plans, specifications and cost estimates, or changes therein, which, when approved, shall become a part of the license; and

WHEREAS, The California Oregon Power Company, hereinafter called the Licensee, a corporation organized under the laws of the State of California and duly qualified to do business in Oregon, with its principal place of business at 216 West Main Street, Medford, Oregon, on April 17, 1951 made application in due and proper form to the Commission for a license for a power project designated as Project No. 180 on the records of the Commission, and by the Licensee as Big Bend No. 2 Project, and by the Federal Power Commission as Project No. 2082, and

for authority to construct, maintain, and operate in the County of Klamath, State of Oregon, certain project works, necessary or convenient for the development, transmission and utilization of electric power, and for the use of the waters of Klamath River, a tributary of Pacific Ocean, for generation of such electric power; and

WHEREAS, the Licensee filed an amended application with the Commission on June 14, 1956 which would combine the proposed Big Bend No. 1 and Big Bend No. 2 projects in one plant as one project to be known as the Big Bend project for which the Licensee proposes to appropriate the same quantity of water from Klamath River, namely, 2,500 cubic feet per second; and

WHEREAS, the Big Bend project is a major project for development of 131,534 theoretical horsepower with a proposed installed plant capacity of 80,000 kw; the applicant has paid to the Commission all fees required prior to issuance of a license in accordance with the provisions of the Hydroelectric Act and the Rules and Regulations of the Commission; and no application for said project, or in conflict therewith, has been filed by any municipality or public utility district; and

WHEREAS, the Licensee has filed maps, plans and specifications as required by ORS 543.290, and the Commission finds that the project will be well adapted to the utilization of the water power involved and hereby approves the same; and

WHEREAS, the Licensee on the 27th day of November, 1956 accepted in writing all the terms and conditions of this license for Project No. 180;

NOW, THEREFORE, the Commission hereby issues this license to the Licensee for the purpose of constructing, operating, and maintaining the project works hereinafter described, necessary or convenient for the development, transmission, and utilization of hydroelectric power, and to appropriate, acquire, and hold the right to use the waters of Klamath River to the extent hereinafter set forth. This license is issued on condition that said Licensee shall comply with all the terms and conditions of the Hydroelectric Act and Laws of Oregon relating thereto and with the Rules and Regulations of the Commission pursuant thereto as though fully set forth herein, and shall be subject also to the following express conditions, limitations and exceptions, to-wit:

ARTICLE 1. Definition of Project. The word "project" as used in this license means the complete unit, improvement or development. It includes, among other things, powerhouses, waterwheels, conduits or pipes, dams and appurtenant works and structures, storage, diverting or forebay reservoirs connected therewith, and primary lines transmitting power to the point of junction with a distributing system, or with any interconnected primary system, miscellaneous works and structures used in connection with the unit or any part thereof, rights of way, lands, flowage rights and all other properties, rights and structures necessary or appropriate in the use, operation, and maintenance of any such unit.

ARTICLE 2. Description of Project. A concise, general description of Project No. 180 is as follows:

(a) Dams and Reservoirs

An earth fill dam across the Klamath River, approximately 60 feet high and 650 feet long will divert water required for the project.

The dam will be located in the NW $\frac{1}{4}$  of Sec. 6, T. 40 S., R. 7 E., W.M. The reservoir behind the dam will have a normal water elevation of 3793 feet and it will extend upstream approximately 3 miles.

(b) Conduit

The conduit intake will be incorporated in the south abutment of the dam. The conduit will consist of a steel pipe about 600 feet long bridging the Klamath River, an open canal, including flumes, extending about 11,000 feet along the west bank of the Klamath River, a forebay, a tunnel 16 feet in diameter and about 1600 feet long, and a penstock branching into a double penstock at its lower end, approximately 800 feet long.

(c) Power Plant

The power plant to be located on the west bank of the Klamath River in the NW $\frac{1}{4}$  of Sec. 13, T. 40 S., R. 6 E. W.M. will develop 131,534 theoretical horsepower using 2500 cubic feet per second of water under a gross head of 463 feet. It will contain two outdoor type generating units, each having a capacity of 40,000 KW. A total of six 15,000 KVA transformers will be located on the powerhouse structure adjacent to the generators. An additional spare transformer will be kept on hand ready to use in case of breakdown.

(d) Transmission Line

A 230 KV transmission line will connect the plant with Licensee's existing transmission system. Details of the line will be determined at some future time and presented to the Commission in a separate application for amendment of license.

Exhibits. The location and character of the project are more specifically shown and described by the following designated Exhibits filed with the Commission, which are made a part of this license:

Exhibit C-1: entitled Location of Project Works, Big Bend Development, superseding Exhibit B.

Exhibit E -1: entitled Nature and Extent of the Proposed Appropriation of Water, Big Bend Development, superseding Exhibit D.

Exhibit F-1: entitled Statement on Project Lands, superseding Exhibit E.

Exhibit H-1: entitled Statement on Proposed Operation, superseding Exhibit G.

Exhibit I-1: entitled Statement on Capacity and Output, modifying Exhibit H.

Exhibit J-1: entitled Klamath River Project, General Map, superseding Exhibit I previously submitted.

Exhibit K-1: Sheet No. 1, entitled Big Bend Development, General Map and Project Boundary.

Sheet No. 2, entitled Big Bend Development, Topographic Map of Reservoir Area.

Sheet No. 3, entitled Big Bend Development, Topographic Map of Reservoir Area.

Sheet No. 4, entitled Big Bend Development, Topographic Map of Reservoir Area.

Sheet No. 5, entitled Big Bend Development, Topographic Map of Dam and Conduit Location.

Sheet No. 6, entitled Big Bend Development, Topographic Map of Conduit, Forebay, Tunnel, Penstock and Powerhouse Location.

The above K-1 exhibits supersede the Exhibit J previously submitted.

Exhibit L-1: Sheet No. 1, entitled Diversion Dam - Plan and Sections.

Sheet No. 2, entitled Powerhouse Plan and Sections.

Sheet No. 3, entitled Detail and Profile of Conduit, Tunnel and Penstock.

The above listed L-1 exhibits supersede Exhibit K previously submitted.

Exhibit M-1: entitled Revised General Description and Specifications of Equipment, superseding Exhibit L.

Exhibit N-1: entitled Cost Estimate of Big Bend Development, superseding Exhibit M.

Exhibit O-1: entitled Statement of Time Desired for Constructing the Big Bend Development, superseding Exhibit N.

Copies of specifications shall be filed with the Commission prior to construction.

No substantial changes shall be made in the maps, plans, specifications and statements described and designated as Exhibits herein until such changes have been approved by order of the Commission. To the extent any changes in maps, plans or specifications are hereafter approved by the Commission, the approval of such change shall be deemed to amend the description of the license accordingly.

ARTICLE 3. The Licensee shall bypass sufficient water for the proper operation of fishways, fish traps and other fish handling or fish protective devices, and to sustain fish life in the river below. Facilities and equipment necessary for the migration of fish upstream to, and downstream from the reservoir shall be satisfactory to the Commission and shall be properly maintained and available for efficient operation and for use at all times.

It is specifically agreed that for the first full year of operation of Project No. 180 the minimum release for the preservation of fish

shall be 100 cubic feet per second; that during the first year of operation, representatives of the Oregon State Game Commission will maintain a study project to determine the effect of each release on fish life; that after the first full year of operation the Hydroelectric Commission will reconsider the minimum release to be required and conduct a hearing of interested parties, if deemed appropriate and necessary, and fix a new rate of minimum flow release for the ensuing year; that this program of observation will continue for a total period of five years with review by the Hydroelectric Commission each year before a definite and final minimum flow release is determined; and that such definite and final minimum release which will be effective throughout the remaining period of the license, shall not be less than 50 cubic feet per second nor more than 150 cubic feet per second; provided, however, that at all times the Licensee shall maintain a minimum flow of 200 cubic feet per second immediately below the Big Bend powerhouse.

It is further specifically agreed that in order to regulate the fluctuations in water stage below the Big Bend powerhouse, the power plant will be operated so as to increase or decrease gradually the rise or fall of the river at a rate not to exceed 9 inches per hour at a point one-half mile below said powerhouse; and that this figure will also be subject to review by the Hydroelectric Commission from time to time and adjustments of said figure will be under the discretion of the Commission.

The foregoing terms and restrictions of Article 3 shall not apply to conditions beyond the control of the Licensee.

ARTICLE 4. The Licensee shall furnish the Commission with a monthly progress report of construction of Project No. 180. Included

in this report shall be a statement of the claimed cost covering each of the accounts involved.

ARTICLE 5. The Licensee shall furnish such detailed information and data as may be required by the Commission to enable the Commission, with the information and data heretofore submitted, to pass upon the safety and adequacy of all the structures, including fishways, which will be a part of Project No. 180.

ARTICLE 6. Period of License. This license is effective as of January 1, 1957 and shall terminate December 31, 2006 unless, as provided in ORS 543.520, the whole net investment of the project under this license shall be amortized and repaid prior thereto.

ARTICLE 7. Jurisdiction. In consideration of this license and of the benefits and advantages accruing thereunder to the Licensee, it is expressly agreed by the Licensee that the entire project, project area, and project works as hereinafter designated and described whether or not upon the lands of the United States, shall be subject to all provisions, terms, and conditions of this license. Should the Licensee be prevented from compliance with any provisions of this license or of the Hydroelectric Act by the operation of any valid Federal Law, or the lawful order, rule or regulation of any Federal governmental agency exercising exclusive jurisdiction in the premises, it shall not be deemed to be in default or under any liability to the State of Oregon for failure to perform the same during the period of such disability.

ARTICLE 8. Time for Completion of Work. The Licensee shall complete the construction of the project works, on or before January 1,

1959, unless for good cause shown the Commission shall order and allow an extension of time for such completion.

ARTICLE 9. Water Right Granted. Subject to the provisions of ARTICLE 3, this license grants the Licensee the right to use 2,500 cubic feet per second of the waters of Klamath River for the development of hydroelectric power at the Big Bend hydroelectric dam, and to impound all, or any part of said 2,500 cubic feet per second in the Big Bend reservoir to elevation 2793, and to use the impounded water as needed for the operation of Licensee's hydroelectric project; provided that the quantity of water used at any time from the direct flow of the Klamath River and from storage shall not exceed 2,500 cubic feet per second.

The date of priority of this appropriation of water is April 17, 1951.

The water right granted under this license shall be subject and subsequent in point of right of use to any prior appropriation of the waters of the Klamath River or its tributaries, and to any permits granted by the State Engineer of Oregon, or his successor having jurisdiction in the matter, to the use of the waters of Klamath River and its tributaries for domestic, stock or irrigation purposes on or after April 17, 1951.

For the term of this license, no Klamath water as defined in the contract of January 31, 1956 between the Licensee and the United States of America shall be used by the Licensee when needed or required for use for domestic, municipal or irrigation purposes within the Upper Klamath River Basin as defined in said contract, subject to the condition that all drainage and return flows from the lands in the Upper Klamath

River Basin, other than those lands defined as "project land" in said contract, shall be returned to the Klamath River above Keno; provided further, that nothing herein shall curtail or interfere with the water rights of the Licensee having a priority earlier than May 19, 1905.

ARTICLE 10. Period of Water Right. The right to the use of the waters of the Klamath River in connection with the development of this project shall be vested in the Licensee during the time this license or any new license issued pursuant to ORS 543.520, or any lawful renewal thereof is in force.

ARTICLE 11. Annual License Fee. An annual license fee of \$19,730.10 shall be paid by the Licensee on or before January 1 of each calendar year for each of the calendar years 1959 to 2006, inclusive, being 15 cents for each of the 131,534 theoretical horsepower authorized herein for Project No. 180.

Should the terms and conditions of this license be extended at its expiration, the Licensee shall pay such annual fees as the Hydro-electric Commission of Oregon, or its successor having jurisdiction in the matter at the time, shall fix.

ARTICLE 12. Expenses of Examination. The Licensee shall pay to the State of Oregon pursuant to ORS 543.280 the expenses incurred and to be incurred by the Commission in examining into the application for license, and maps, plans, specifications, cost estimates and other matters relating to the project, and the investigations from time to time of acts done and work carried forward under the license until completion of the project.

ARTICLE 13. Depreciation. The amount of the annual charges for depreciation expenses to be included in the cost of operation shall

be determined on a straight line basis computed by use of service lives as determined by the Public Utilities Commissioner of Oregon, subject to the approval of the Commission; provided, that, for the purpose of depreciation, the service lives of the initial units of property shall not exceed the unexpired period of this license; provided further, that the Commission may upon further determination and in its discretion extend the period of depreciation of the original units of the project beyond the life of the license. In determining the amount of the annual charges for depreciation expense to be included in the cost of operation prior to the time of final action of the Commission in fixing the actual legitimate cost of the original project as provided for in ARTICLE 14 of this license, the original legitimate cost of the items in each account number as set forth in the "Initial Cost Statement" to be filed by the Licensee, as provided for in said Article, shall be used.

ARTICLE 14. Determination of Cost of Project.

(a) Initial Cost Statements: The Licensee shall file within one year after the time the initial development is ready for service, an initial statement, under oath, with three additional conformed copies thereof showing the amount claimed by the Licensee as the actual legitimate cost of the initial development, as defined in Subsection 2 of ORS 543.010, on forms as now prescribed by the Federal Power Commission for this purpose, unless otherwise directed by the Commission. Similar statements with respect to net additions and betterments to the initial developments shall be filed in the same manner before April 1 of each and every succeeding year during the term of this license or any lawful extension thereof, unless the Commission shall otherwise direct.

(b) Substance: Each statement so filed shall give full, adequate and complete information with respect to the cost of the project or additions and betterments thereto as the case may be. Any statement which does not contain sufficient information will be returned to the Licensee for such additional information as the Commission may deem necessary.

(c) Report on Project: When a satisfactory statement shall have been filed with the Commission, the Commission will file one copy of such with the Public Utilities Commissioner of Oregon, and the Commission's representatives will make an audit of the accounts, will analyze the books, cost records, engineering reports, and other records supporting such statement or pertaining to the project, will inspect the project works, and will prepare a report setting forth their findings and recommendations with respect to the cost as claimed.

(d) Service of Report: Copies of such report and of the final report provided for in subsection (g) of this ARTICLE 14, will be served by registered mail upon the Licensee at its principal place of business in Oregon and copies will be sent to the Public Utilities Commissioner of Oregon, the Federal Power Commission and such other parties as the Commission may prescribe.

(e) Time of Filing of Protest: Thirty days after service thereof will be allowed to the Licensee within which to file a protest to such report. If no protest is filed within the time allowed, the Commission will issue such orders as may be appropriate. If a protest is filed a hearing will be ordered, such hearing to be held within 90 days from the filing of the protest with the Commission.

(f) Burden of Proof: The burden of proof to sustain each item of the statement of claimed cost as filed shall be upon the Licensee and only such items as are in the opinion of the Commission supported by satisfactory proof may be entered in the project accounts of the Licensee.

(g) Finding and Final Statement: Final action by the Commission will be in the form of a finding and order entered upon its minutes and served upon the Licensee, Public Utilities Commissioner of Oregon, the Federal Power Commission and such other parties as the Commission may prescribe. The Licensee shall thereafter file a final statement, under oath, in duplicate, with two additional copies thereof, showing the net investment revised in conformity with the order of the Commission, together with a statement showing that its records have been revised in conformity with such order.

ARTICLE 15. Reasonable Rate of Return: A reasonable rate of return on the net investment in the project shall be that established by the Public Utilities Commissioner of Oregon, subject to the approval of the Commission, but shall not exceed 6 percent per annum. The surplus earned and accumulated in excess of the reasonable rate of return for this project will be in proportion to the total surplus earned and accumulated by the Licensee, as determined by the Public Utilities Commissioner of Oregon, and any surplus earnings shall be apportioned on the basis that the net investment in this project, as determined by the Commission, bears to the total net investment of Licensee in its electric utilities properties and such determination shall be subject to the approval of the Commission.

The formula to be used to determine the surplus earned and accumulated for this project as set out above will be as follows:

$$a = \frac{bx}{y}$$

in which

- a = the surplus earned and accumulated in excess of a reasonable rate of return for this project;
- b = total surplus earned and accumulated by the Licensee in excess of a rate of return of 6 percent per annum on all its electric utilities properties as determined by the Public Utilities Commissioner of Oregon;
- x = total net investment of Licensee in this project as determined by the Commission;
- y = total net investment of Licensee in his electric utilities properties as determined by the Public Utilities Commissioner of Oregon.

The determination of the Public Utilities Commissioner with respect to "b" and "y" shall be subject to the approval of the Commission.

ARTICLE 16. Amortization Reserve. Any earnings in excess of said reasonable rate of return as determined by the Public Utilities Commissioner of Oregon and as approved by the Hydroelectric Commission, shall be set up in Account 258-2, Miscellaneous Reserve, as a credit to the Amortization Reserve, pursuant to ORS 543.510, of the Hydroelectric Act, to be disposed of in accordance with order of the Commission.

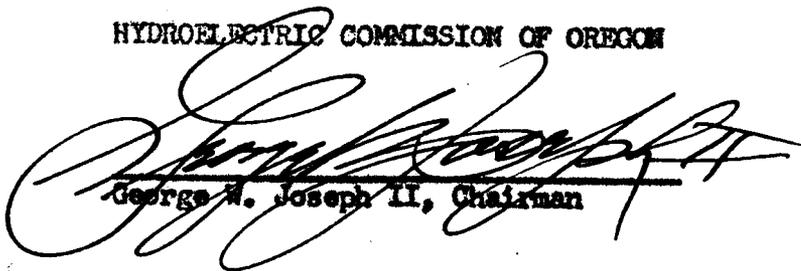
ARTICLE 17. Accounting. For the purpose of this license and the accounting to be followed by the Licensee, the Commission adopts the Uniform System of Accounts prescribed by the Public Utilities Commissioner of Oregon for Class A and B Electric Utilities, effective January 1, 1937, and reserves the right to approve any revisions or modifications thereof.

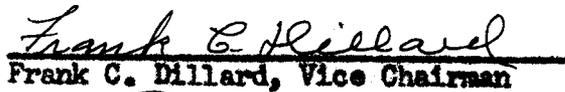
ARTICLE 18. Bond of Licensee to Protect Laborers and Materialmen Before entering upon the construction of this project the Licensee shall execute a bond as required by ORS 543.560 in an amount of \$10,000, the

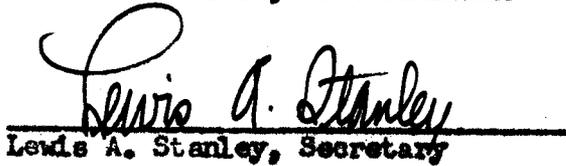
form of which is to be approved by the Attorney General of Oregon, which bond shall be in addition to and not in lieu of any other liability of the Licensee principal.

IN WITNESS WHEREOF, the Hydroelectric Commission of Oregon has caused its name to be signed hereto at Salem, Oregon, this 30 day of November, 1956.

HYDROELECTRIC COMMISSION OF OREGON

  
George A. Joseph II, Chairman

  
Frank C. Dillard, Vice Chairman

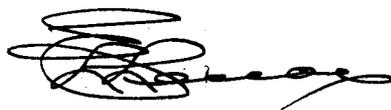
  
Lewis A. Stanley, Secretary

IN TESTIMONY OF ACCEPTANCE of all the terms and conditions of the Hydroelectric Act, and of the further conditions imposed in the foregoing license, the Licensee, this 27th day of November, 1956 has caused its corporate name to be signed by A. S. Cummins, its President, and its corporate seal to be affixed hereto and attested by E. L. Lenox, its Secretary, pursuant to the resolution of its board of directors, duly adopted on the 27th day of November, 1956, a certified copy of the record of which is attached hereto.

By A. S. Cummins  
President

SEAL

Attest:

  
Secretary

THE CALIFORNIA OREGON POWER COMPANY  
CERTIFIED COPY OF RESOLUTION ADOPTED BY  
THE BOARD OF DIRECTORS

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RESOLVED, That the President, A. S. Cummins, and the Secretary, E. L. Lenox, of this Corporation be and they hereby are authorized, empowered and directed for and on behalf of this Corporation, and as its corporate act and deed, to execute an acceptance of License for a Major Hydroelectric Project - The California Oregon Power Company - Project No. 180, which said license provides for the construction, operation and maintenance of the Big Bend Project on the Klamath River in Klamath County, Oregon, and said officials are authorized to do and perform any and all acts necessary or desirable to effectuate the purpose of this resolution.

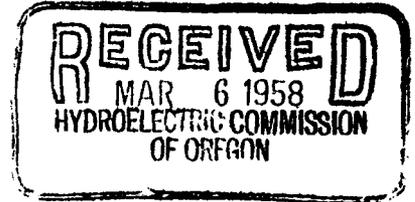
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I, E. L. Lenox, Secretary of The California Oregon Power Company, hereby certify the above and foregoing to be a full, true and correct copy of a resolution adopted by the Board of Directors of said Corporation at a meeting thereof held on November 27, 1956; that there was then and there present and voted thereon a quorum of said Board; and that said resolution is in full force and effect.

IN WITNESS WHEREOF, I have hereunto set my hand and affixed the seal of said Corporation this 27th day of November, 1956.

  
Secretary

SEAL



EXCERPT FROM THE MINUTES OF A MEETING OF THE HYDROELECTRIC COMMISSION OF OREGON HELD IN THE OFFICE OF THE COMMISSION, 251 FINANCE BUILDING, SALEM, OREGON ON FEBRUARY 10, 1958.

FIRST AMENDMENT OF LICENSE FOR PROJECT NO. 180

Project No. 180 - The California Oregon Power Company

The Commission considered an application of The California Oregon Power Company for amendment of license for Project No. 180 to include a transmission line designated as Line No. 59 linking the Big Bend development with existing Copco facilities at Medford and Klamath Falls, Oregon. Pertinent plans and specifications were filed with the application. After due deliberation it was ORDERED that License for Project No. 180 be amended to read as follows:

FIRST AMENDMENT OF LICENSE FOR PROJECT NO. 180.

ARTICLE 2 (d) - Transmission Line of License for Project No. 180 is hereby amended to read as follows:

Transmission Line No. 59 will extend from the hydro plant substation in the Big Bend development to the Lone Pine substation at Medford, Oregon on the western extremity and to the Klamath Falls substation at Klamath Falls, Oregon on the eastern extremity. The total length of line is 69.9 miles. The line will consist of full length treated fir poles, "H" frame structures with steel crossarms 40 feet long supporting three 795,000 CM ACSR conductors code "Drake". Conductors will be strung to heavy loading. Operating voltage will be approximately 230 KV. Construction of the line will conform to standards of the National Electric Safety Code.

ARTICLE 2 Exhibits is hereby amended to include the following:

Exhibit F-2, entitled Supplemental Statement on Ownership of Lands, supplementing previously submitted "F" exhibits.

Exhibit J-2, entitled General Map - Transmission Line from Medford to Klamath Falls, Jackson and Klamath Counties, supplementing previously submitted "J" exhibits.

Exhibit K-2, Sheets 1 to 15 inclusive, entitled Transmission Line from Medford to Klamath Falls, Jackson and Klamath Counties, Oregon, supplementing previously submitted "K" exhibits.

Exhibit M-2, entitled Transmission Line Specifications, supplementing previously submitted "M" exhibits.

Exhibit N-2, entitled Transmission Line Cost Estimate, supplementing previously submitted "N" exhibits.

In testimony of its agreement to the foregoing amendment, The California Oregon Power Company this 28th day of February, 1958, has caused its corporate name to be signed hereto by A. S. Cummins, its President, and its corporate seal to be affixed hereto and attested by E. L. Lenox, its Secretary, pursuant to a resolution of its Board of Directors duly adopted on the 27th day of February, 1958, a certified copy of which is attached.

THE CALIFORNIA OREGON POWER COMPANY

By A. S. Cummins  
President

Seal

Attest:

E. L. Lenox  
Secretary

THE CALIFORNIA OREGON POWER COMPANY  
RESOLUTION ADOPTED BY THE BOARD OF DIRECTORS  
FEBRUARY 27, 1958

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RESOLVED, that the President, or a Vice President, and the Secretary, or an Assistant Secretary of this corporation be and they hereby are authorized, empowered and directed for and on behalf of this corporation, and as its corporate act and deed, to execute an acceptance of "First Amendment of License for Project No. 180 - The California Oregon Power Company" to include therein this Company's Transmission Line No. 59 extending between Medford and Klamath Falls, Oregon, and connecting the Big Bend Development with the Company's existing transmission facilities, and said officials are authorized and directed to do and perform any and all acts necessary or desirable to effectuate the purpose of this resolution.

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I, E. L. LENOX, Secretary of The California Oregon Power Company, hereby certify the foregoing to be a full, true and correct copy of a resolution adopted by the Board of Directors of said corporation at a meeting thereof held on February 27, 1958; that there was then and there present and voted thereon a quorum of said Board; and that said resolution is in full force and effect.

IN WITNESS WHEREOF, I have hereunto set my hand and affixed the seal of said corporation this 28th day of February, 1958.



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Secretary