# Bonneville Power Chief

WENTY-FIVE years of varied and valuable experience in electrical engineering spoke well for Charles E. Carey, '14eng, '18ms, when a vacancy occurred last December in the position of chief consulting engineer of the Bonneville Power Administration, Portland, Oregon. He was then principal construction engineer of the Administration and had "proved his metal" in that capacity. He was the logical successor to the executive post.

Mr. Carey, Mrs. Verle Leigh Carey, and their daughter, Marjory, 15 years old, live in Portland. Their home has been there since December, 1937, when Mr. Carey was first employed on the Bonneville project as rate engineer.

Bonneville Dam is on the Columbia River about forty miles east of Portland. It is part of a project which includes also a ship lock, fishways, powerhouse, and an extensive transmission system for the power output of the dam.

Engineering, construction and operating activities on this \$50,000,000 power transmission network are under Mr. Carey's supervision. The vastness of the proposed system is indicated by the fact that 600 miles of lines have been surveyed, 9,000 drawings have been prepared, and more than 700 cars of material have been purchased and delivered. Mr. Carey is in direct charge of about 750 engineers and more than 3,000 additional men engaged in construction.

"Because of the short time allotted for the completion of the work," Mr. Carey said, "the major problem of this position has been the selecting, training, and building of an organization to carry out the program in which are involved all branches of engineering, each requiring a high technical skill."

That problem, however large, is not entirely new to Charles Carey. In fact, the position he walked into, directly from the University in June, 1914, was that of employment supervisor of the Dallas Railways. As assistant to the superintendent of transportation, he was in charge of selecting and training men employed by the company.

Mr. Carey, after two years in personnel work, became design engineer with the Texas Construction Company, Dallas. Here he met for the first time another phase of the major problem he is handling today. From drafting he went into field engineering, designing the interconnection between two Texas electric utilities. This involved the design and construction of 66,000-volt lines and substations, in addition to improvements in the generating stations.

One of the utility companies whose in-

terconnection he had been designing, the Dallas Power and Light Company, offered him the position of assistant to the superintendent. He accepted, and was put in charge of co-ordinating the operation and construction activities of the system he had begun. He was not destined, however, to take it to completion.

By June, 1918, the call of the United States for soldiers was becoming more



Charles E. Carey, '14eng, '18ms, who directs utilization of power from the huge Bonneville project

urgent. Mr. Carey left the Dallas concern and went to the Field Artillery Officers' Training Camp. His discharge came in December, 1918.

Actual location and construction of transmission lines occupied him for the next two years, first in the oil fields of West Texas and later in Missouri for the Missouri Gas and Electric Company. He resigned his position with the latter organization to accept appointment as associate professor and head of the department of electrical engineering, University of New Mexico, where he remained for three years.

Drawn again to private employment, Mr. Carey was made general engineer in the central station engineering department of the Westinghouse Electric and Manufacturing Company at East Pittsburgh, Pennsylvania, a position requiring full knowledge of problems of transmission, generation and conversion utilization of electrical energy. He handled such jobs as electrification of the Staten Island Railway, and the electrification and rebuilding of the power supply for the city railway system in Detroit.

In September, 1924, he was transferred across the continent to the Seattle branch office of Westinghouse. with the title engineering supervisor, he was in charge of all engineering for the company in Washington, Oregon, Idaho and Montana. During ten years in that office he had a large part in such engineering projects as the Skagit River development of the City of Seattle, the Cushman Project of the City of Tacoma, the Cholan development of the Washington Water Power Company, and others. Mr. Carey's responsibility covered all engineering relating to the application, operation and correction of apparatus trouble. He also did consulting work for the sales organization of his company and for its customers.

Mr. Carey did not go through the depression unscathed. He turned to free-lance engineering practice in 1934, but six months later he joined the Ford, Bacon and Davis Company, Seattle, as valuation engineer. He was with that organization about a year, during which time his principal assignment was to determine the physical condition of the electrical and mechanical apparatus in use by one of the public utilities in the Northwest as a factor in complete valuation of its physical properties.

A temporary job followed. He was design engineer for the Western Blower Company, also in Seattle, working out detailed designs for blowers and air conditioning equipment.

Works Progress Administration officials chose Mr. Carey one of the assistant district engineers in Seattle. After assisting in the development of the program for the construction of projects, he was granted a leave of absence to serve as consulting electrical engineer for the National Resources Committee. He aided in the preparation of the Columbia Basin Study which was to make "recommendation as to the type of organization for the planning, construction and operation of various public works in the Columbia Basin."

He returned to WPA and was advanced to supervisor of the division of operation. This placed him in complete charge of all engineering and construction activities necessary to provide employment for a maximum of 15,000 people, and added materially to his experience in handling men as well as a job. He dealt with labor relation problems, selected and directed men often under extremely difficult conditions. As a result, his district was recognized as one of the most efficiently handled districts in the works program, and many of the methods and

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### Bonneville Power Chief

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policies in use there were adopted in other

Mr. Carey resigned the WPA position, and after a temporary assignment with the lighting department of the City of Seattle, opened consulting engineering offices at Burton, Washington. He was engaged principally in the construction of transmission lines, which served to equip him even more fully for his present job on the giant Bonneville line.

Organization of the Bonneville project of the United States Department of the Interior came late in 1937, with Mr. Carey being named rate engineer. His job was to prepare cost studies of transmission and distribution systems for the potential power output of the Bonneville dam.

Four months later he was made principal construction engineer for the project. In less than two years more he moved into his present position as chief consulting engineer.

Outside of his regular engineering work, Mr. Carey has been chairman of the Seattle Section of the American Institute of Electrical Engineers. He has also written numerous professional and technical papers.

As a student in the University of Oklahoma, Mr. Carey played basketball, was president of the Edison Club, belonged to the Engineers' Club and the O. U. chapter of the American Institute of Electrical Engineers, and worked as electrician in charge of the Law Building and the Power Plant.

He is a brother of Tom F. Carey, '08, Oklahoma City certified public accountant and tax counselor who is former president of the University of Oklahoma Association and now a member of the Stadium-Union Board of Trustees and a trustee of the alumni association's Life Membership Trust Fund.

#### Colorado's Head Coach

New head football coach at the University of Colorado is Frank Potts, '27, who has been advanced from his former position as track coach. He signed a one-year contract to coach football, and will continue to handle the Colorado track and field squad which he has coached for thirteen years.

Potts played in the backfield of the Sooner football teams of 1925 and 1926, and was named on the all-Missouri Valley team at halfback. Many Sooner alumni remember a spectacular run for a touchdown from his own 40-yard line which Potts made against Missouri in

A member of the O. U. track team in the seasons of 1926 and 1927, Potts tied for the national intercollegiate pole vaulting championship in his last year.