

Y 4
. In 8/13
N 72/
966-4

1040

IN 8/13
N 72/966-4

GOVERNMENT

Storage

HEARING
BEFORE THE
COMMITTEE ON
INTERIOR AND INSULAR AFFAIRS
UNITED STATES SENATE
EIGHTY-NINTH CONGRESS
SECOND SESSION
ON
THE NOMINATION OF CHARLES F. LUCE TO BE UNDER
SECRETARY OF THE DEPARTMENT OF THE INTERIOR

SEPTEMBER 8, 1966

Printed for the use of the
Committee on Interior and Insular Affairs



U.S. GOVERNMENT PRINTING OFFICE
WASHINGTON : 1966

69-027



COMMITTEE ON INTERIOR AND INSULAR AFFAIRS

HENRY M. JACKSON, Washington, *Chairman*

CLINTON P. ANDERSON, New Mexico

ALAN BIBLE, Nevada

FRANK CHURCH, Idaho

ERNEST GRUENING, Alaska

FRANK E. MOSS, Utah

QUENTIN N. BURDICK, North Dakota

CARL HAYDEN, Arizona

GEORGE McGOVERN, South Dakota

GAYLORD NELSON, Wisconsin

LEE METCALF, Montana

THOMAS H. KUCHEL, California

GORDON ALLOTT, Colorado

LEN B. JORDAN, Idaho

MILWARD L. SIMPSON, Wyoming

PAUL J. FANNIN, Arizona

JERRY T. VERKLER, *Staff Director*

STEWART FRENCH, *Chief Counsel*

E. LEWIS REID, *Minority Counsel*

NOMINATION OF CHARLES F. LUCE TO BE UNDER SECRETARY OF THE DEPARTMENT OF THE INTERIOR

THURSDAY, SEPTEMBER 8, 1966

U.S. SENATE,
COMMITTEE ON INTERIOR AND INSULAR AFFAIRS,
Washington, D.C.

The committee met, pursuant to call, at 10 a.m. in room 3110, Senate Office Building, Senator Henry M. Jackson (chairman of the committee) presiding.

Present: Senators Henry M. Jackson (Washington), Clinton P. Anderson (New Mexico), Ernest Gruening (Alaska), Frank E. Moss (Utah), Quentin N. Burdick (North Dakota), George McGovern (South Dakota), Gaylord Nelson (Wisconsin), Thomas H. Kuchel (California), and Paul J. Fannin (Arizona).

Also present: Jerry T. Verkler, staff director; Stewart French, chief counsel; Roy M. Whitacre, professional staff member; and E. Lewis Reid, minority counsel.

The CHAIRMAN. The committee will come to order.

This is an open hearing by the Committee on Interior and Insular Affairs on the nomination by President Johnson of Mr. Charles F. Luce to be Under Secretary of the Department of the Interior.

Mr. Luce has had a distinguished career in the executive branch of the Government and has served with great energy and ability as Administrator of the Bonneville Power Administration since 1961.

Without objection, I will direct that a biographical sketch of Mr. Luce, supplied by the Department of the Interior, appear in the record of this hearing at the conclusion of my opening remarks.

In his new post, Mr. Luce will succeed Mr. John A. Carver, Jr., who has been appointed by the President as a member of the Federal Power Commission. As I pointed out in my statement on the floor of the Senate on August 31, Mr. Carver has been well and favorably known to this committee. Many of us first knew him when he was administrative assistant to our distinguished colleague, the senior Senator from Idaho, Senator Church. He was appointed Assistant Secretary of the Interior for Public Lands by President Kennedy in 1961, and subsequently became Under Secretary. I know I speak for all the members of the committee when I wish John Carver every success in his new post.

Mr. Luce also is already well known to the members of this committee. It will be recalled that he has assisted us on several of the major bills, including the third powerplant at Grand Coulee Dam in this Congress and the Pacific Northwest-Pacific Southwest intertie in the 88th Congress.

I am proud to have known Charles Luce both personally and officially for many years, and I know he will bring the same outstand-

ing ability, initiative, and industry to his new post that has characterized his service in the past.

At this critical point in history, it has become increasingly obvious that our Nation must marshal all of our natural resources to meet the needs of a growing population and a complex modern society. I am confident that Charles F. Luce will play a major role in meeting this national need.

There is no question about the ability and qualifications of Mr. Luce to carry out the new assignment entrusted to him by the President. He has demonstrated creative imagination, courage in pursuing difficult goals, and highest competence in directing a revitalized resource development and conservation program.

His achievements are legion. They include, in addition to those I already have mentioned, the Columbia River Treaty with Canada, advancement of direct-current transmission, and the Hanford nuclear powerplant, among many others. All have demonstrated a new high in cooperation among public and private electrical generating and distribution agencies and government and have produced significant benefits for the Nation.

(The biographical letter referred to follows:)

U.S. DEPARTMENT OF THE INTERIOR,
BONNEVILLE POWER ADMINISTRATION,
Portland, Oreg., September 1, 1966.

HON. HENRY M. JACKSON,
Chairman, Committee on Interior and Insular Affairs,
U.S. Senate, Washington, D.C.

MY DEAR MR. CHAIRMAN: Herewith is biographical data which your Committee has requested in connection with my nomination by President Johnson to serve as Under Secretary of the Department of the Interior.

I was born in Platteville, Wisconsin, on August 29, 1917. My father is James O. Luce and my mother Wilma Grindell Luce; both still reside in Platteville. I have one brother, James Jr., age 47, who resides in Detroit, Michigan.

I am married to Helen Oden Luce, formerly of Mansfield Center, Connecticut. Our four children and their ages are: James 22, Christine and Barbara 15, and Charles 10. Our domicile is Walla Walla County, Washington. Our residence the past five years has been 7012 East Sleret, Vancouver, Washington.

My formal education includes Platteville High School, from which I graduated in 1935; Platteville Teachers College, which I attended from 1935 to 1937; the University of Wisconsin, from which I received B.A. and LL.B. degrees in 1941; and Yale Law School, where I did graduate studies on a Sterling Fellowship, 1941-1942. I am a member of Phi Beta Kappa, Order of the Coif, and Phi Delta Phi. I am admitted to the practice of law in Washington, Oregon, and Wisconsin.

Upon the completion of my studies at Yale, I was employed as an attorney by the Board of Economic Warfare in 1942-1943; as law clerk to Mr. Justice Black in 1943-1944; and as an attorney for the Bonneville Power Administration 1944-1946. Because of a light case of polio I was unable to serve in World War II except as a seaman in the temporary Coast Guard Reserve at Portland, Oregon. In September 1946, I hung out my shingle as a lawyer in Walla Walla, Washington, where I engaged in the general practice of law continuously until February 14, 1961, when I was appointed by Secretary of the Interior Stewart L. Udall to be Administrator of the Bonneville Power Administration. I still occupy that position.

If there is additional biographical information which the Committee desires, I would be pleased to provide it.

Sincerely yours,

CHARLES F. LUCE.

The CHAIRMAN. Before I call on Mr. Luce himself for any statement he may care to make, does any member of the committee wish to be heard at this time?

Senator NELSON. Mr. Chairman, may I say I am exceptionally pleased with this fine appointment by the President. I have known Charles Luce since the early 1940's when we were in law school together. He is a very able lawyer, a very distinguished public servant.

I think it is a very fine appointment. I will have more to say about it on the floor of the Senate when the nomination goes to the floor.

The CHAIRMAN. Thank you, Senator Nelson.

Mr. Luce, if you would make a statement now, I suggest you start by giving a brief summary of your biography, and any other comments you wish to make.

STATEMENT OF CHARLES F. LUCE

Mr. LUCE. Thank you, Mr. Chairman and members of the committee.

It is a pleasure to be here again before this committee. I am happy to hear from the chairman that my previous appearances in the third powerhouse hearings and the Pacific intertie hearings may have been of assistance to the committee, because I can assure the committee that it has been of great assistance to the programs of the Department of the Interior and the Bonneville Power Administration in both of these areas.

I have filed with the committee a somewhat detailed biographical statement, which I will summarize.

For the last 20 years, my family and I have been residents of Walla Walla County, Wash. I am a native of the State of Wisconsin and a graduate of the Law School of the University of Wisconsin in 1941.

Upon finishing law school at Madison, Wis., I did a year of graduate work at Yale Law School under a Sterling fellowship. Then I came, in 1942, to Washington, D.C., as a young lawyer with what was called the Board of Economic Warfare. After a year at the Board of Economic Warfare, I was appointed by Mr. Justice Hugo L. Black as his law clerk and served for him in that capacity in the October 1943 term of court.

After I finished my clerkship, I moved to the State of Washington and worked for the Bonneville Power Administration for 2 years while taking my bar exams in both Washington and Oregon. I was admitted to practice in both States.

In 1946 I moved to Walla Walla, Wash., and hung out a shingle as a lawyer in that community, where I practiced law for the following 15 years. My practice was a general one, as any practice is in a community the size of Walla Walla, which has a population of about 25,000 persons. If I had any specialty at all, it arose from the circumstance that I was counsel for the Confederated Tribes of the Umatilla Indian Reservation, headquartered near Pendleton, Oreg., which is only about 50 miles from Walla Walla.

In 1961 I was asked by Secretary Udall to become the Administrator of the Bonneville Power Administration. I accepted the job and have served in that capacity for the last 5½ years.

I have a family consisting of a wife, Helen, and four children. My oldest, a boy, is a freshman at the University of Wisconsin Law School this fall. My other children are in high school and grade school here in the District of Columbia where we have purchased a home.

That, I think, is a thumbnail sketch of my biography, my professional experience, and my family.

I come to this job with a considerable feeling of humility. I know that it is a very large job, and a difficult one. I do believe strongly in the mission of the Department of the Interior which has become not just a department of natural resources for the West, but a department of natural resources for the entire Nation. This development is emphasized most recently by the President's transferring responsibility for water pollution control to the Department of the Interior.

We do administer a large part of the federally owned natural resources of this country, and upon the kind of job we do will depend a large part of the future of this country, not only as to its quantity, as Secretary Udall has pointed out, but as to the quality of the life that we have in the United States.

It is not enough, as I see it, and as Secretary Udall has stated, to have a high standard of living in terms of material goods, but, in addition to that, we must have an environment in which it is pleasant and spiritually fulfilling to live. So at the Department of the Interior we must strive for both of those objectives.

I hope, under the leadership of President Johnson and Secretary Udall, and with the help of this committee, to meet the many challenges that continually confront the Department of the Interior.

The CHAIRMAN. Thank you, Mr. Luce.

The Chair wishes to announce that Senator Bible has sent a letter to the chairman warmly praising Mr. Luce, and asking that he be recorded in favor of his confirmation. He is being detained out of the city.

(The letter referred to follows:)

U.S. SENATE,
COMMITTEE ON INTERIOR AND INSULAR AFFAIRS,
September 8, 1966.

HON. HENRY M. JACKSON,
*Chairman, Senate Interior and Insular Affairs Committee,
U.S. Senate, Washington, D.C.*

DEAR SCOOP: I sincerely regret my inability to attend the hearings on the confirmation of the appointment of Charles Luce to be Under Secretary of the Interior.

Chuck Luce is one of the finest and best qualified individuals I know in the public service. Our close association as a result of his appearances before both this Committee and the Appropriations Committee have indicated to me that he has the knowledge and the temperament to perform an outstanding service in this position so important to the continued growth of the far west and the nation.

Please record me as voting wholeheartedly in favor of confirmation of the nomination.

Cordially,

ALAN BIBLE.

The CHAIRMAN. Senator Anderson?

Senator ANDERSON. I am happy that Mr. Luce has the attitudes he has indicated. I know something about his background, and I believe he will be a fine administrator. Personally, I am very pleased with this appointment.

The CHAIRMAN. Thank you, Senator Anderson.

Senator KUCHEL?

Senator KUCHEL. My contacts with the Under Secretary of Interior-designate have been many, and in great part they dealt a couple of years ago with the enormous problem of intertie legislation, which the chairman was most interested in and is most interested in.

I have no hesitation in saying that in my judgment Charles Luce, by education, by experience, and by integrity, is qualified for this position.

Mr. Luce, you and I had a talk earlier. A Member of the U.S. Senate must be a Senator for the country, but he must also be a Senator for his State. It is exceedingly difficult when those two laudable and understandable aims may be somewhat at cross-purposes, although I doubt that that is the fact too often.

At any rate, you have seen a regional responsibility of considerable magnitude with the Bonneville Power Administration and you now assume a crucially important national responsibility. You cease to be politically or governmentally a citizen or a resident of any part of this Nation. At any rate, that would be, and I am sure will be, an irrelevant consideration as you approach these new tasks.

I remember when the late great President Kennedy was sworn in. He saw fit to appoint a Californian to the position which you are about to occupy. I remember the great apprehension which was voiced by my able friend from New Mexico as to the competency of a Californian being able to discharge responsibilities in this post.

I think as my constituent James Carr left the Federal service, he left with a record of having approached things from the standpoint of what was best in the national interest.

As I said, and I repeat, you are qualified, in my judgment, by education, by experience, and by your past record.

I want you, for this record, to express to the very able chairman of this committee, your friend and my friend, and the members, your concept of your responsibilities.

Mr. LUCE. Thank you, Senator Kuchel.

As I pointed out in my brief opening remarks, the Department of the Interior has become a national department. My responsibilities are those that the Secretary of the Interior confers upon me. His concept of his position, coming from the State of Arizona, have been, nevertheless, to try to conduct the affairs of the Department of the Interior on a national basis.

I will endeavor similarly to be guided by the national interest and not by any regional interest, Senator Kuchel.

The chairman of this committee has talked to me also about having this national approach to the job, and I have assured him that I will try to have it.

Senator KUCHEL. I have no further questions. This public servant has demonstrated to the members of this committee and to people here in Washington in the Federal Government his own dedication to a public trust.

All I can say is that I congratulate Mr. Luce on entering upon an office of enormous responsibility, not simply to western America, but to the entire country.

I look forward to working with you, Mr. Luce during the next 2 years and, as a matter of fact maybe I will be around here longer than that too.

Mr. LUCE. Maybe I will too, Senator Kuchel.

The CHAIRMAN. We hope so.

Senator Gruening?

Senator GRUENING. Thank you, Mr. Chairman.

I am much pleased with this appointment, Mr. Chairman. I am hopeful that Under Secretary Luce will have the opportunity to visit Alaska, which he has not yet done, realizing that practically all the great potentials in Alaska are dealt with on the Federal level by the Department of the Interior—mining, fisheries and wildlife, public lands, parks, power, the Alaska Railroad, and above all, the great human potential which will be utilized as the talents of the Eskimos, Indians, and Aleuts are developed, thereby enabling them to make their true contribution to modern society. These are all responsibilities of the Department of the Interior. They all merit increased activity.

In the field of power, it is a regrettable fact that only one-quarter of 1 percent of Alaska's hydro potential has been developed. During the half century before the admission of Alaska as a State, between the time the last two States previously were admitted, Arizona and New Mexico in 1912, hydro was discovered and demonstrated its superlative value in all the great dams that have been built in the West—Boulder Dam, Grand Coulee, Bonneville, with which you are so familiar, and all the rest. But Alaska was bypassed on all such great projects and needs to catch up.

In the field of mining, it is interesting and pertinent that in the first report of Mr. Joseph Fitzgerald, who is the Chairman of the President's Committee on Alaska Development, there appeared a map which showed Alaska, neighboring Yukon Territory, and Canada, and the upper third of British Columbia, the part which is opposite southeastern Alaska. On this map were marks to indicate the major mining prospects.

In Alaska there were 7; in Yukon Territory, in a much smaller area, there were 19; and in the upper third of British Columbia there were 30. In other words, there were 30 and 19, or 49 to 7, yet with the basically same geologic structure. The difference between the Canadian activity and success and Alaska's inactivity lies in different Federal policy.

As we discovered when we went to Whitehorse to consult with the Canadian authorities—and I had with me the three top officials of the Interior Department dealing with mining, Mr. Cordell Moore, the Assistant Secretary in charge of minerals, Mr. William T. Pecora, head of the Geological Survey, and Dr. Walter Hibbard, Director of the Bureau of Mines, all recently appointed—there is a great field in which Alaska has lagged far behind and where its great mining potential awaits a more enlightened Federal policy. I am hopeful that we may now have it.

In the matter of lands, we have a very confused situation. We have more public land in Alaska than in all the rest of the Union. Its utilization by the State as provided in the Statehood Act is being held up by two Federal agencies, one the Interior Department, which has blocked the distribution of lands on the basis that State selection conflicts with Indian claims, but has done nothing to resolve them, and the Forest Service, which is creating some difficulty in letting the State have the lands which it is entitled to under the Statehood Act from the 21 million acres of national forests in Alaska. And so it goes.

So Alaska has a great potential for the Interior Department, and I am hopeful that as soon as possible you will have an opportunity to go up there and look the situation over.

This is not just in Alaska's interest, but it is in the national interest. Alaska, having been admitted so late to statehood, has lagged far behind and the basic problem there is the problem of catching up and bringing Alaska to a level of equality in the development of its resources with the other States of the Union.

I know that, because of your great knowledge in the field of power, you will be concerned with the fact that so very little of it has been developed in Alaska. Yet we have the greatest undeveloped power potential under the American flag. Rampart Dam on the Yukon will have an installed capacity of 5 million kilowatts, greater than Grand Coulee, until the latest development there.

It is estimated by the Corps of Engineers that Rampart will produce power at 2 mills a kilowatt-hour, at the bussbar. The Corps of Engineers has spent over \$1 million in preparing its study and is ready to go. But its report has been held up for over a year in the Department of the Interior, which has the obligation to contribute its report to the corps. I hope you will do something about that. There is no reason why this should not be acted upon and Congress given the opportunity to make its own studies after the Corps of Engineers report is available.

So I look forward to having you come to Alaska as soon as it is convenient for you and looking at all its many problems. I know you will enjoy your visit there because we have one of the most if not the most beautiful State in the Union.

Thank you.

Mr. LUCE. Thank you, Senator Gruening. I hope in the late spring or early summer of 1967 to spend a week or so in Alaska and learn firsthand the problems as well as the opportunities of that State, and to learn better the role that the Department of the Interior can play in assisting the State in its development.

Senator GRUENING. I would say that we have on our committee several members who are extremely expert in Alaskan matters.

The former chairman of the committee, Senator Clinton Anderson, was the reconstructor of Alaska's economy after the disastrous earthquake. Back in 1950 he conducted the first hearing on statehood for the Senate by special request of President Truman. He led the statehood fight in one of the various attempts that were made.

Subsequently, the chairman of the committee was in charge of the statehood bill when it was finally passed, so he is extremely knowledgeable on the subject of Alaska.

I know they share my views about the importance of Alaska in the national picture.

Both the chairman and former chairman are recipients of honorary degrees from the University of Alaska, which is testimony of our appreciation of their interest in Alaska and their concern over it.

The CHAIRMAN. The distinguished Senator from Alaska is very generous.

As I recall, when I came to Alaska to get the honorary degree the distinguished Senator was then Governor, and I teased him by saying that I understood I was the first non-Eskimo to receive such an honor from the University of Alaska.

Thank you.

Senator FANNIN.

Senator FANNIN. Thank you, Mr. Chairman.

Mr. Luce, it was a pleasure to have had the opportunity to visit with you in my office a couple of days ago. I was very impressed with the answers you gave to me on some of the questions I asked of you.

After our visit, I did obtain a circular, No. A-76, which was referred to in our conversation, with regard to the policy for acquiring commercial or industrial products and services for Government use.

When we had our visit, I expressed concern that you might be interested in the competition that exists many times between the Federal Government and private industry. I do have a few questions I would like to ask you at this time.

How do you feel about the matter of Government participation in commercial and industrial activities?

Mr. LUCE. I think as a general principle, Senator Fannin, that where private industry can do the job best and serve the public interest to the best advantages, it ought to do so. Ordinarily, that will be the case.

Senator FANNIN. We discussed several different instances where I felt that the Government had entered into competition with free enterprise. One was TVA on commercial fertilizers, for instance.

I thought it was a little farfetched for the Federal Government to be in the fertilizer business.

We also discussed the microwave communications services of the Bureau of Reclamation. At that time you told me that some of our industries in the State of Arizona also had services that were in competition though I don't think that compares with what we were discussing in relationship to what you told me about the services in which you were involved at Bonneville.

I would like to have you express your thoughts in that regard.

Mr. LUCE. As I see it, the question of microwave service for power system control for the Bureau of Reclamation and the Bonneville Power Administration electric systems, and, indeed, for the TVA system, is not peculiarly a question of whether the Government will provide its own services or buy them in the commercial market. The problem is far more complicated than that.

In the operation of an electric power system nowadays, where you connect together many generating plants with high voltage and high capacity transmission lines, it is necessary that that system be controlled by virtually instantaneous switching. If something goes wrong at one point on the system, instantly remedial measures are instituted at other points on the system, so that the lights stay on and reliability of electric service is protected.

At the Bonneville Power Administration, with which I am most familiar, we have provided, ever since 1948, after World War II, when microwave first came on the market, our own backbone microwave grid to conduct the switching and system control operations.

In doing so, we have followed the practice of every other utility of the size and complexity of Bonneville Power Administration, so far as I know.

I know personally of Pacific Gas & Electric Co., and the Southern California Edison Co., which are the two utilities on the west coast that have generating capacity comparable to that of Bonneville Power Administration. Both of these utilities, like Bonneville, have their own backbone microwave service for this system control purpose.

The Bonneville Power Administration does utilize the telephone service for, you might say, the subsidiary control problems other than the backbone problems. We lease wire service from the telephone company, and we use other services for which we pay the telephone company about \$300,000 or \$350,000 a year in billings. I know that Pacific Gas & Electric and Southern California Edison do likewise.

I think in the Senator's home State, the Arizona Public Service has its own microwave system, and the Salt River project has its own microwave system.

The CHAIRMAN. May I interrupt right there, Mr. Luce?

It is my understanding the microwave system was discussed before the Appropriations Committee. The course outlined by you before that committee was supported by the utilities as a proper method of operation. Is that not correct?

Mr. LUCE. That is correct, as to utilities involved in the Pacific intertie system.

The CHAIRMAN. That is what I was referring to.

Pacific Gas & Electric, Southern California Edison, and the city of Los Angeles would be the principal ones in the south.

Mr. LUCE. That is correct.

The Budget document to which Senator Fannin refers, A-76, I think is its current title, deals generally with the procurement of goods and services by the Federal Government.

Senator FANNIN. I think it goes further than that. It says the guidelines in this circular are in furtherance of the Government's internal policy of relying upon the private enterprise system to supply its needs. I think that goes further than what you mentioned. The services would include what you were talking about.

I feel that private enterprise can supply those services, and should supply those services, and, all other things being equal, I feel the Government should rely on private enterprise for goods and services. Is that your feeling?

Mr. LUCE. I would certainly agree, all other things being equal, Senator Fannin. Of course, we do most of our procurement of goods and services through private channels, through commercial channels.

The question with respect to microwave is whether all other things are equal. What I was pointing out was that our procurement practices in microwave are similar to those of private utilities of comparable size and complexity.

With respect to the Bureau of Reclamation, about which you also asked, my understanding is that in some areas they do use the microwave services of the telephone companies, for example in the Missouri Basin. In other areas, they have their own microwave, and in still other areas, they have a mixed system where they own some of their own microwave and use the telephone services for the balance.

I would point out, however, that the Bureau of Reclamation has no one system that approaches in size or complexity that of the Bonneville Power Administration. I think the largest system they have, as an integrated system, is something of the neighborhood of 2 or 2½ million kilowatts.

The Bonneville system is some 7 million kilowatts, and under construction are another 8 million kilowatts. It is an immense system, and we have to be certain that we provide reliable electric

service. If we don't do that up in the Northwest, the lights can go out in Phoenix, Ariz. As a matter of fact, that happened not long ago.

Senator FANNIN. Of course, when the Federal Government enters into contracts or arrangements for Telstar and projects of that magnitude surely they could enter into a contract with private enterprise to take care of these items.

I understood that this circular was issued at the request of the President to avoid a furtherance of these activities, and to curtail some of them that are now in existence. Is that your understanding?

Mr. LUCE. It is not our understanding as regards the procurement of microwave service, that A-76 was intended to change the existing policies which were previously stated in another Budget circular, which I think is called 60-2.

Neither of these Budget circulars mentions microwave as such. They deal generally with the procurement or purchasing of goods and services.

Senator FANNIN. You brought up the subject of microwave when we were talking the other day, so I was using that as an example, but there are many other instances.

What criteria would you apply to make these decisions as to whether or not they should be contracted for or whether they should be done by the Federal Government?

Mr. LUCE. The general criteria are those set forth in this Budget document, A-76, and they, in turn, are simply trying, I think, to define the public interest in procurement.

I might say that most of our procurement is done through private channels. For example, all of our equipment is purchased from General Electric, Westinghouse, or other electrical manufacturers.

We do virtually no constructing of our own. That is, the towers, the substations, the other electric properties that the Bonneville Power Administration constructs are constructed by private industry, by contractors under competitive bidding procedures.

I suppose 90 or 95 percent of our construction activity is actually done by private enterprise. We do very little of it ourselves.

Senator FANNIN. Circular A-76 calls for an inventory of all commercial services by June 30, 1966. Can you tell me how many such activities are in the Bonneville Power Administration and are to be included in the overall inventory?

Mr. LUCE. I believe that inventory is for 1967. I think the inventory is now in the process of preparation.

Senator FANNIN. June 30, 1966, to be included in the inventory by that date.

Mr. LUCE. Mr. Toman, who is the very able Washington manager for the Bonneville Power Administration, tells me the Senator is correct, that it was June 30, 1966, and we did prepare such an inventory and submitted it to the Bureau of the Budget.

Senator FANNIN. From the conversation I had with you the other day, I assume you are very much in favor of carrying through the criteria set down by Circular No. A-76.

Mr. LUCE. Yes, sir. It is the policy of the Administration, and I do my best to carry it out.

Senator FANNIN. Fine. Thank you very much.

The CHAIRMAN. Senator Burdick.

Senator BURDICK. Mr. Chairman, I am delighted that Mr. Luce has been nominated, and I am equally delighted that he has consented to serve in this capacity.

As you know, Mr. Chairman, Mr. Luce comes from that forward-looking complex of North Dakota, Minnesota, Wisconsin, where a lot of good things came from during the years. I am certainly in favor of his confirmation.

I would like to ask about two things, Mr. Luce.

The chairman referred to your work in the application and use of direct current for long distance transmission. Where are we in this field, and what should we expect in the future?

Mr. LUCE. Bonneville Power Administration, in cooperation with the city of Los Angeles, the Southern California Edison Co. and the Bureau of Reclamation is building the first two high voltage direct current lines ever to be constructed in the United States. These lines will extend from a point on the north near The Dalles, Oreg., to Los Angeles and to Hoover Dam. That is, one of the lines goes from The Dalles to Los Angeles, and the other goes from The Dalles to Hoover Dam.

Each of the lines will be about 815 to 820 miles long. Each of them will be operated at 800,000 volts at the sending end and 750,000 volts at the receiving end. Each will have a capacity of about 1,300,000 kilowatts, a very large capacity.

The rectification equipment has been the bottleneck in developing direct current transmission in the world. However, in 1952 or 1954 the Swedes developed a high voltage rectifier. As a matter of fact, the equipment that will be installed on the lines I have just described to the committee is being constructed largely in Sweden by a joint venture consisting of the ASEA Co. and the General Electric Co. of the United States.

We foresee many other applications in the United States for direct current, other than these pioneering lines. We think that not only will there be other long distance direct current lines—for example, one is currently proposed from the New York metropolitan area to the Province of Quebec—but we think that there will be local applications for direct current, because as the price comes down on rectification equipment, it will be desirable, we think, to use overland and underground cables, carrying direct current, transporting into our metropolitan areas large supplies of electrical energy.

For certain electrical reasons, it is much simpler to transmit electricity underground or underwater by direct current than it is by alternating current.

There is a lot of concern in the United States, and indeed all over the western part of the world, about the esthetics of transmission lines cluttering the landscapes in suburban and metropolitan areas.

I think that if we could look ahead 15 or 20 years, we would see more and more applications of direct current to put these lines underground in such areas, or to use less obtrusive single cables above ground.

Senator BURDICK. Would it be a fair statement to say that in the next 15 to 20 years we can look forward to a feasible transmission line carrying current 1,000 miles?

Mr. LUCE. I think we have that technology now, Senator Burdick. It happens we are only sending it 820 miles, but the same equipment could send it 1,000 miles.

Senator BURDICK. I have a vested interest. The western half of North Dakota is underlaid with lignite coal, and to date, in all due respect to my colleague from New Mexico, on-site lignite production is the cheapest production available. Do you agree?

Mr. LUCE. I am not an expert in this field. I can discuss hydro economics but must leave mine mouth generation to others.

Senator BURDICK. It seems to be cheaper than hydro. From all the facts and figures we get, it is even cheaper than atomic production.

Anyway, it would be a great boon to our State if we could master this transmission system.

Mr. LUCE. In the States of New Mexico, Nevada, and probably soon in the southern part of the State of Utah, a combination of public and privately owned utilities called WEST are building large mine-mouth generation plants utilizing coal deposits in bringing that electricity into the metropolitan load centers, principally in southern California, with high voltage alternating current lines operating at 500,000 volts.

There is no reason that direct current could not be used for a similar purpose with respect to either the coal deposits or lignite deposits.

Senator BURDICK. Now, a more common ailment in our part of the country: Are you aware of the deterioration of fresh water lakes in the Minnesota-Wisconsin-North Dakota area?

Mr. LUCE. I was made aware of it, Senator, in our conversation yesterday.

Senator BURDICK. We have a relatively new country out there. Eighty-five years ago, a man by the name of Custer was killed in wild, virgin territory, and now we see fresh water lakes becoming marshy. These fresh water lakes have great recreation potential.

I realize that pollution is a problem in the Great Lakes and in a great many of our streams, and other places, but the fresh water lakes are now being attacked.

When you undertake your duties on this new job, would you look kindly upon some kind of project that might save fresh water lakes?

Mr. LUCE. I am sure Secretary Udall's policies would be to do whatever he could in that direction.

Lakes are, as I understand it, from a geological standpoint, a rather temporary phenomenon. The average age of a lake, as I recall my college geology, is around 10,000 years. But mankind, by enriching the water with plant food, can greatly shorten the lives of lakes by setting up a cycle where you get plant growth, and then the plants dies and sink to the bottom and more plants grow, and gradually the lake becomes a bog.

I think part of the water pollution control job that we have at the Department of the Interior will be to try to preserve, at least as far as nature intended, these fresh water lakes.

Senator BURDICK. I wish you well in your new responsibilities for the many years you have ahead of you.

Mr. LUCE. Thank you.

The CHAIRMAN. Thank you, Senator Burdick.

Senator McGovern.

Senator MCGOVERN. Mr. Chairman I just want to say that I think we are fortunate to have a man of Mr. Luce's ability and intelligence moving into this post.

I just want to ask one question as to what you see as the timetable and the feasibility of developing an intertie system that might enable us to secure more efficient use of the electric power from our various basin systems.

Mr. LUCE. Senator McGovern, I would not have any predictions that would go beyond those of the national power survey which was compiled and published by the Federal Power Commission within the last 18 months or 2 years.

That study foresaw, first of all, the rapid development of large regional power systems in which the various independently owned utilities, both public and private, would be strongly interconnected and would coordinate their operations.

The same Federal Power Commission national power survey also contemplated that these regional systems would then in turn be interconnected, so that by 1980 or 1985 we would have a truly national power system, although we would preserve the independent ownerships of the components of this system.

Surely at the Department of the Interior it is our policy, and has been the policy during Secretary Udall's term as head of the Department, to strive actively to preserve the independence of the utilities of the country, and at the same time to encourage them to interconnect and coordinate in the interest of more efficient and more reliable operations.

This national power survey did foresee ultimately a number of long high voltage lines, some of them direct current, many of them alternating current, connecting the various time zones of the United States, connecting the various temperature zones of the United States, so that the diversities of load characteristics could be taken advantage of and thereby we could reduce the total investment in generating facilities that is required to meet the electric needs of the country.

Senator McGovern. Thank you very much.

The CHAIRMAN. Senator Nelson.

Senator NELSON. I was very pleased to hear Senator Anderson say that he was completely happy with this appointment.

Senator Anderson is one of the distinguished public servants of this century and having served such a length of time on this committee anyone he is completely happy with has to be quite a fellow.

The CHAIRMAN. Well thank you very much.

I have received letters from the Northwest Public Power Association and the Southwestern Power Administration endorsing Mr. Luce. They will be included at this point.

(The letters referred to follow:)

NORTHWEST PUBLIC POWER ASSOCIATION,
Vancouver, Wash., September 1, 1966.

HON. HENRY M. JACKSON,
Senate Office Building, Washington, D.C.

DEAR SENATOR JACKSON: We wish to endorse and support Senate confirmation of Mr. Charles F. Luce to be Under Secretary of the Interior.

The Association's views may best be expressed by the enclosed citation for the Award for Distinguished Service which the Association presented to Mr. Luce on March 11, 1966.

Sincerely,

GUS NORWOOD,
Executive Secretary.

[Enclosure]

AWARD FOR DISTINGUISHED SERVICE

CITATION

The Northwest Public Power Association is honored to present the Award For Distinguished Service to Charles F. Luce for personal dedication and outstanding public service.

Since undertaking his duties as Administrator of the Bonneville Power Administration, Mr. Luce has provided great leadership and negotiative ability in revitalizing the operations of the U.S. Columbia River Power System.

In the brief span of our years his list of impressive achievements includes (1) assisting in the negotiation of the Columbia River Treaty; (2) facilitating the legislative and contractual arrangements leading to the construction of the Hanford atomic power generating station; (3) developing the program of west coast interties and providing the leadership to win approval of Congress for their construction; (4) adopting a system wide payout and accounting plan for the U.S. Columbia River Power System; and (5) advancing the extension of Bonneville power into southern Idaho.

These four years have been the most dynamic in the 28-year history of the Bonneville Power Administration. In recognition and appreciation for these achievements and leadership of Mr. Luce, the Northwest Public Power Association is proud to present this award.

U.S. DEPARTMENT OF THE INTERIOR,
SOUTHWESTERN POWER ADMINISTRATION,
Tulsa, Okla., September 8, 1966.

Senator HENRY M. JACKSON,
Chairman, Committee on Interior and Insular Affairs,
U.S. Senate, Washington, D.C.

DEAR SENATOR JACKSON: I was delighted to learn that President Johnson has nominated Mr. Charles F. Luce, Administrator, Bonneville Power Administration, as Undersecretary of the Interior. In my opinion, Mr. Luce is eminently qualified by character, ability and experience for this important position, and I am sure all of Interior will benefit from his leadership.

During some thirty years service in the Department of the Interior, I have been privileged to serve under many Secretaries, Undersecretaries and Assistant Secretaries, and have enjoyed close association with many of the Heads of agencies and bureaus. In light of this experience, and a similar association with Mr. Luce, it seemed appropriate that my opinion be expressed to your Committee in the hope that it will be helpful.

Sincerely yours,

DOUGLAS G. WRIGHT, *Administrator.*

The CHAIRMAN. The Chair will state that Mr. Luce has submitted a financial statement, and in accord with the practices of the committee, we will recess now and go into executive session to question him in that regard, and to act on the nomination.

(Whereupon, at 10:55 a.m., the committee proceeded to go into executive session.)

