

**HEARINGS BEFORE THE SUBCOMMITTEE OF  
THE COMMITTEE ON APPROPRIATIONS,  
HOUSE OF REPRESENTATIVES IN  
CHARGE OF THE FORTIFICATION  
APPROPRIATION BILL CONCERNING THE  
COST OF PRODUCING ELECTRIC CURRENT**

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Hearings before the Subcommittee of the Committee on Appropriations, House of Representatives in Charge of the Fortification Appropriation Bill concerning the Cost of Producing Electric Current by Various

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# **VARIOUS**

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**HEARINGS**

BEFORE THE

U.S.  
**SUBCOMMITTEE OF THE COMMITTEE  
ON APPROPRIATIONS, HOUSE OF  
REPRESENTATIVES**

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CONSISTING OF

Messrs. WALTER I. SMITH (chairman), J. V. GRAFF,  
F. H. GILLETT, SWAGAR SHERLEY,  
and J. J. FITZGERALD

IN CHARGE OF

**THE FORTIFICATION APPROPRIATION BILL**

CONCERNING

**THE COST OF PRODUCING  
ELECTRIC CURRENT**

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WASHINGTON  
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## COST OF PRODUCING ELECTRIC CURRENT.

Hearings conducted by the subcommittee, Messrs. W. I. Smith (chairman), J. V. Graf, F. H. Gillett, Swagar Sherley, and J. J. Fitzgerald, of the Committee on Appropriations, House of Representatives, in charge of the fortification appropriation bill.

TUESDAY, *May 12, 1908.*

Subcommittee called to order at 10.30 a. m., Hon. Walter I. Smith presiding.

### STATEMENT OF MR. ALBERT F. DAWSON, A REPRESENTATIVE FROM THE STATE OF IOWA.

Mr. SMITH. Mr. Dawson, you are a Member of Congress from Iowa?  
Mr. DAWSON. Yes, sir.

Mr. SMITH. During the consideration in the Committee of the Whole of the sundry civil bill you were in possession of what purported to be some data as to the cost of production of electric current at the navy-yard, Washington. I will ask you to state where you obtained that information, and how you came to have it, if you will.

Mr. DAWSON. Well, would it be just as satisfactory to the committee for me to go ahead and make my statement in my own way?

Mr. SMITH. I would a little rather you would answer the question that I have just asked.

Mr. DAWSON. I have a statement in my hand which I have just confirmed this morning with Admiral Leutze, of the navy-yard, and it was found to be absolutely correct.

Mr. SMITH. You are a member of the Naval Committee of the House?

Mr. DAWSON. Yes, sir.

Mr. SMITH. Do you have any objection to answering my question as to who enlisted you in this inquiry?

Mr. DAWSON. I do not know that it is an entirely pertinent question.

I was invited here this morning, as I understood it, to consider with you the subject of "the cost of production of electric current in the District of Columbia." As a member of the Naval Committee—following the policy of the Committee on Appropriations, which I think is a good one, of scrutinizing the action of other committees—I gave some consideration to the question of section No. 9 of the sundry civil bill as it would apply to the navy-yard, with the result that I have this statement as to the cost of production of electric power at the navy-yard; and I can say to you that this is an official statement; that it was prepared in the navy-yard, and is approved by the commandant

of the yard. It was prepared by the chief electrician of the yard from the figures on his books.

I will say to the committee that I submit this statement on my own responsibility, backed by the authority of the commandant of the navy-yard. Is that sufficient for the committee?

Mr. SMITH. Now, Mr. Dawson, as I have stated, we do not desire to ask you or force you to answer embarrassing questions, and we have no right to force you to answer any questions. Do you wish this committee to understand that in undertaking to have an investigation of the price of electric current you were actuated entirely by your membership on the Naval Committee and were not approached by anybody on the subject?

Mr. DAWSON. Oh, no; I do not intend to say that at all. As a member of the Naval Committee I meet many people who are interested in naval subjects, and as such this matter was brought to my attention.

Mr. SMITH. I think it is important for the committee and for Congress to know that the employees of the Government are making a concerted effort to prevent the purchase of current from outside concerns, and assert that the current can be produced as cheaply by the Government by maintaining a large force for that purpose in the Government employ.

Mr. DAWSON. I can say to you very frankly that no Government employee approached me or brought the matter to my attention.

Mr. SMITH. You did not receive it through official sources in the first instance?

Mr. DAWSON. No, sir; but I will say that I have verified it through official sources, so that the subject-matter of it is official.

Mr. SMITH. Do you personally know how the appropriation is made, from your experience upon the Naval Committee, and out of which the expense for this current is paid?

Mr. DAWSON. At the navy-yard?

Mr. SMITH. Yes.

Mr. DAWSON. No; not in detail.

Mr. SMITH. Are you able to say whether the appropriation for current can be distinguished from the appropriation for other purposes at the navy-yard?

Mr. DAWSON. No—that is, in the appropriation bill, or by the persons who expend the money?

Mr. SMITH. I am now speaking of the appropriation.

Mr. DAWSON. No; I think not.

Mr. SMITH. So that the question of what the current costs at the navy-yard must of necessity be a question largely of bookkeeping, is it not?

Mr. DAWSON. It is a matter of record.

Mr. SMITH. As to what part of the expense they charge to current and what part to heat, if they are using the same boilers?

Mr. DAWSON. I understand these figures are for power and light alone and not for heat at all.

I might add that the statement which I have here, showing the cost of production of electric current at the navy-yard, includes a percentage for deterioration of plant, and a liberal percentage also for maintenance of plant.

Mr. SMITH. Do you know what percentage is charged for deterioration?

Mr. DAWSON. Ten per cent on the figures I have here, and 10 per cent for maintenance, so that it puts the figures of production practically on a commercial basis, which I assume is what the committee desires.

Mr. GRAFF. Is not 10 per cent rather small for depreciation of a plant of that sort?

Mr. DAWSON. That would provide for reproducing the plant every ten years; that is, 10 per cent on the cost of the plant.

Mr. GRAFF. I have had a little experience in regard to electric-light plants, and I know that there is quite a considerable hazard in regard to accidents, because it is delicate machinery, and it is run at very high speed.

Mr. DAWSON. Undoubtedly your judgment would be far better than mine upon that, because I make no pretension of being an electrical expert.

Mr. SMITH. Is there anything further that you can say that would aid us in our investigation?

Mr. DAWSON. If you wish this cost—

Mr. SMITH. We would like to have that in the record. Whom do you say is in charge in the navy-yard in such a way as to be able to testify as to the details of the correctness of your statement? Your knowledge is from their statement to you, is it not?

Mr. DAWSON. The chief electrician at the yard.

Mr. SMITH. Who is that now?

Mr. DAWSON. I have forgotten his name, although I just left him a few moments ago.

Mr. SHERLEY. Did he prepare this statement that you have?

Mr. DAWSON. I think so. This is a statement from the records of his office.

Mr. SMITH. Are you able to state to the committee whether the parties who approached you upon this subject were acting in the interest of the Government employees or whether they were simply acting from a desire to promote the interests of the Government?

Mr. DAWSON. No; I can not.

Mr. SMITH. Is there anything further that you wish to state, Mr. Dawson?

Mr. DAWSON. No, excepting this: I do not like to be put in the attitude before this committee of being actuated by any improper motives in this matter.

Mr. SMITH. We do not suspect anything of that sort, Mr. Dawson.

Mr. DAWSON. I have observed the attitude of members of the Committee on Appropriations as measures come in upon the floor of the House, wherein they take it upon themselves—and I think properly, too—to scrutinize and criticize the legislation which comes from other committees. As a member of the Committee on Naval Affairs I believe it is a part of my duty to scrutinize and criticize any legislation from any other committee which may have an effect upon the Navy Department or the naval service generally, and this item relating to the electric power in the District of Columbia is one in which a great naval institution is vitally interested.

Mr. SMITH. Very much so.

Mr. DAWSON. And it seems to me that it is entirely proper for a member of the Naval Committee to examine into the question.

Mr. SMITH. No doubt of that.



Mr. DAWSON. I do not know exactly the motives of the person who brought this matter to my attention. I think, however, that he had at heart not only the public good and the interests of the public service but also the interests of the Government in bringing it to my attention.

Now, to get down to the actual cost of production of electric power at the Washington Navy-Yard, I would like to ask the chairman, before I proceed, whether he desires me to touch also upon the question of what effect the proposed amendment—because I assume that section 9 is the general basis upon which this hearing is being held—would have on the service at the navy-yard; and whether or not the chairman desires me to give to the committee the additional cost to the navy-yard which would follow under the provisions of that section.

Mr. SMITH. Well, in a sense, you are right, Mr. Dawson; that is to say, section 9 of the sundry civil bill was prepared at a time when the evidence before the committee showed that the minimum cost of any electric current required by the Government was about 3 cents, and from that up to 15 cents; and that the price in section 9 was below the minimum and very greatly below the maximum. It is now being claimed that the information given the committee was erroneous, and we want to know the truth; we want to know the cause of the bias, if there is such, upon the part of the witnesses on both sides. We realize, of course, that if the representative of the electric company is before us he is biased, and we realize also that if a man has lost his position under the Government because of the reduction in the service-producing electric power he has his bias. We want to know the weight to attach to the testimony of every man, and that is all.

Mr. DAWSON. And likewise a man who is going to lose his job has a perfect right to state his case, to be heard and considered.

Mr. SMITH. He certainly has; but we desire to know if that is the reason why there should be resistance to the reduction of the Government force, so far as his side is concerned, the same as General Harries's testimony would relate to his side. We want to know the weight of testimony in every instance. We cordially approve of your action as a member of the Naval Committee in trying to safeguard the interests of the Government at the navy-yard.

Mr. DAWSON. I trust the committee will take it for granted that I have no bias whatever. I have a public duty to perform, and I am endeavoring to perform it.

Mr. SMITH. No doubt of it.

Mr. DAWSON. Now, the figures taken from the books of the chief electrician of the Washington Navy-Yard show that the present cost to produce current per kilowatt hour is 8.521 mills—less than 1 cent per kilowatt hour.

Mr. SMITH. Will you permit me to interrupt you at that point? Are you advised as to whether the navy-yard is the largest consumer of current as to power used of any Government institution around Washington?

Mr. DAWSON. I believe it is; I believe it is the second largest plant in the District as to size. My understanding is it is about one-third the size of the central power station of the Electric Company.

Now, that figure includes, as I said, a percentage for depreciation, and also for interest on the investment, and maintenance. The actual cost of the production there is \$0.00762, which would be 7.62 mills.

To that is added 10 per cent for depreciation of plant, which, as Mr. Graff says, may be a little low; and also 10 per cent, as I understand it, for the maintenance of the plant, which brings that figure up to the one I have previously named.

Mr. SHERLEY. What is charged in there in regard to labor; do you know?

Mr. DAWSON. No; not in detail; but I understand that that includes the entire force which has charge of the electrical department in the Washington Navy-Yard; but I may add, at this point, that it includes quite a considerable force, because they have a fire-alarm system there, dynamos here and there in the laboratories and at other parts of the yard, and if they were to change from their present system of independent plant and take their power from the outside, they would still be compelled to keep practically the same force there that they have now—a superintendent and men to look after the various little things. As was explained to me, the force which is required there is employed largely upon the little things rather than upon the larger item of the production of power itself.

Mr. SHERLEY. Then, should they be charged to the cost of production?

Mr. DAWSON. I think they should.

Mr. SHERLEY. If they are employed in producing electricity, they would not be employed if they were not producing electricity.

Mr. DAWSON. Of course, that would only make the showing less—

Mr. SHERLEY. It is not what effect it may have upon the book-keeping, but I want to find out what accuracy has gone into the making up of this statement.

Mr. DAWSON. I understand, and I am satisfied that this statement has been made up entirely on the side of conservatism and fairness.

Now, I have here a detailed statement of what the daily cost of maintenance of the plant is, and I will read it:

*Itemized statement showing the cost per kilowatt hour of producing electric current in the navy-yard, Washington, D. C.*

Coal consumed under 10 boilers, 63 tons.....	\$163.80
Pay of 12 engineers, 3 shifts of 8 hours.....	43.44
Pay of 2 laborers.....	3.84
Attendance on boilers, 6 men, 8 hours each.....	13.44
Lubricating oil.....	.88
Cylinder oil.....	1.36
Grease.....	.10
Waste.....	.60
Boiler compound.....	.50
Depreciation of boiler and engine plants and general repairs on both.....	371.75
Total daily cost.....	599.71
Maximum output for each of four large generating units..... amperes..	2,500
Maximum output of one smaller generating unit..... do.....	2,250
Maximum output of one smaller unit..... do.....	500
Total maximum output of six units..... do.....	12,750
Total kilowatts per hour (230 volts)..... do.....	2,932.5
Total maximum kilowatt-hour capacity per one day of 24 hours.....	70,380
Cost to produce current per kilowatt hour.....	\$0.008521

Mr. SHERLEY. Right there. Are those items as to the cost of employees what is paid them by the Government, or does it represent just a part of their pay?

Mr. DAWSON. I understand this represents their full pay.

Now, if you apply to that great plant down there the provisions of section 9, you get this result: That section, as I recall it, provided a pay of 6½ cents per kilowatt hour for the first one million hours and 2½ cents thereafter. If the navy-yard were to take the power upon that basis, they would then be at an extra expense on the first million hours of 5½ cents per kilowatt hour, the difference between the cost to manufacture there and the purchase price, of \$55,000 on the first million hours. Their consumption there now is about 15,000 kilowatt hours per day. It is a little more than that, but figuring on that basis for 313 days in the year their average yearly consumption would be about 4,700,000 kilowatt hours. Of that amount, the additional cost of the first million hours would be \$55,000.

Mr. SMITH. That is a fallacy; there is nothing in that at all, Mr. Dawson. The first million hours is not chargeable to that at all in any practical sense. The Government is now buying a million kilowatt hours of current of this company at that price and is paying for it. It might possibly operate, understand me, to transfer a part of this 6 cents per kilowatt hour current from some other Department to the Navy Department, but the Government would not lose anything, and can put the whole of this in at 2½ cents, and that is what it would amount to.

Mr. DAWSON. I should say in explanation that I have no familiarity with the electrical situation in other Departments. My knowledge is confined to the Washington Navy-Yard by reason of my membership on the Committee on Naval Affairs, and I was simply applying section 9 to that institution.

But leaving that \$55,000 aside and figuring the entire consumption at the minimum rate in section 9, you would have 4,700,000 kilowatt hours to be paid for at 2½ cents per hour, which would be a net increase to that institution of a cent and a half per hour, or \$70,500. So that even on the basis of 2½ cents per hour the increased cost to the Government would be \$70,500. The commandant of the yard does not know how that could be paid. If it were necessary to pay it, it would require an appropriation to meet that additional expense of \$70,500 a year as to the question of power at that institution alone.

Mr. SMITH. That is supposed to mean power and light?

Mr. DAWSON. Yes; power and light. Now, I think that practically covers the essential facts that I have in relation to the price of electric current at the Washington Navy-Yard, and unless there are some questions which the committee desires to ask—

Mr. SMITH. Mr. Dawson, the statement which was furnished you by some one, the one to whom you referred, as having been verified—

Mr. DAWSON. That is the statement I have read and put in the record.

Mr. SMITH. Yes. I think perhaps it might be well to give that to the stenographer and put it in the record and we will return it to you.

Mr. DAWSON. Very well.

Mr. SHERLEY. By whom was that statement verified?

Mr. DAWSON. It was verified this morning by the chief electrician of the navy-yard in conference with the commandant.