Government Ownership In the Communications Industry

For many years it has been federal government policy not to start or carry on any commercial communications activity where such service can be procured through ordinary business channels. More recently, however, the Bureau of Reclamation has established government-owned and -operated communications services for intradepartmental use which largely duplicates common carrier systems. Here is a case study of such a development in connection with the Reclamation Bureau's Colorado river storage power project. The author reaches a negative conclusion as to its desirability, economy, and justification as a matter of policy.

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The fact of government ownership and operation of facilities in various fields of commercial activity has been the subject of a great deal of respectable and unrespectable literature, the object of much haranguing by vested interest groups under the guise of ideology, but all too infrequently the occasion for dispassionate introspection on the part of the policy maker. Labeled "intervention" by detractors and "participation" by supporters, government's economic activities typically involve gradations of control from information, suasion, and legislation in the private sector to outright ownership and operation in the public sector, with the managerial regulation of the public utilities generally regarded as an "in between" case. Its multifaceted view toward competition and markets includes discouraging competition

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(granting exclusive franchises), supplementing (antitrust laws), and supplanting (post office) competition.

The basic service industries—broadly, the utilities—have, for various reasons, been ready candidates for public control and ownership by all levels of government. Community waterworks and city bus lines, local, state, and federal electric power-generating plants are obvious testimony to the point. Less obvious, however, are the extent and direction of government ownership in the communications field. And while hopefully the time is largely past where the specter of an octopuslike government is summoned with the advent of any new public activity, there are nevertheless several criteria—economic and noneconomic—that most agree should be used in determining the wisdom of such action. These involve in the former case considerations of efficiency, resource allocation, costs, and returns and, in the latter case, consonance with stated public policy and evolving public predilections.

The instant case to be examined is the continued movement of the Bureau of Reclamation into the communications field through its recent decisions to own and operate a large communications system connecting certain of its power facilities rather than lease such systems from the private carriers.

Public Policy

Public policy regarding public ownership and operation of product and service facilities is properly viewed on two levels—first, the official position as stated in executive and administrative documents and, second, the unstated and institutional realities as manifested in the agencies and legislation that have evolved over the years. On the former level as Executive Memorandum of September 21, 1959, entitled “Bureau of the Budget Bulletin 60-2,” is the relevant citation.2 Addressed to “the heads of executive departments and establishments,” it deals with the subject “commercial-industrial activities of the government providing products or services for governmental use.”

The bulletin not surprisingly states, “It is the general policy of the administration that the federal government will not start or carry on any commercial-industrial activity to provide a service or product for its own use if such product or service can be procured from private enterprise through ordinary business channels.” An explanatory footnote then defines “commercial-industrial activity . . . for its own use” to include those “primarily for the use of a government agency (whether the providing agency or other agencies),” but to exclude “functions which are a part of the normal management responsibilities of a government agency . . . (such as accounting, personnel work, and the like).”

In a paragraph that would happily quicken the pulse of any chamber of commerce member—but which also happens to express the general view of the populace—the directive continues,

Because the private enterprise system is basic to the American economy, the general policy establishes a presumption in favor of government procurement from commercial sources. This has the twofold benefit of furthering the free enterprise system and permitting agencies to concentrate their efforts on their primary objectives.

Exceptions are then set out in which “the burden of proof lies on the agency which determines that an exception . . . is required,” and this only for “compelling reasons” like “national security, relatively large and disproportionately higher costs; and clear unfeasibility.” In each case, “all relevant factors must be taken into account, including pertinent economic and social aspects of
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public policy, even though they may not be the immediate concern of the agency or official directly responsible for the particular activity.

The three named exceptions are then discussed, excluding predilections in favor of the private contractor. Recognizing that commercial contractors operating under appropriate security clearances and safeguards have been and continue to be essential to the defense effort, the term national security explicitly “is not meant to be all inclusive of all products or services with restricted classifications.” A product or a service which is “an integral function of the basic mission of the agency” is involved in “clear unfeasibility.” Costs must be analyzed on a “comparable basis . . . fairly computed and complete,” including “appraisal of elements not usually chargeable to current appropriations such as depreciation, interest on the government's investment, the cost of self-insurance, and exemption from federal, state, and local taxes . . .” And, finally, “The existence of government-owned capital assets is not in itself an adequate justification for the government to provide its own goods or services.”

PROMULGATED by President Eisenhower, Bulletin 60-2 has continued in effect in the Kennedy and Johnson administrations with some interpretive shifts of emphasis away from total private preference. This shift is noticeably contained in testimony by the Deputy Director of the Budget in testimony before the Joint Economic Committee in 1963. Among other things this administration official emphasized that in current application of the policy increased stress is being placed “on using government installations and staffs rather than commercial or contractual arrangements when commercial operations are clearly more costly.” The spirit—if not the letter—was being stretched. It is not enough, of course, to look only to stated and elaborated policy: It is always necessary to compare these with institutional actuality. It is true that at the largest level of abstraction the amount of Gross National Product attributable to public enterprise (excluding national defense activities) has remained roughly constant at under 2 per cent for several decades. But, as with all percentages, preoccupation with relative comparisons may obscure significant implications flowing from changes in absolute values.

The two influences properly cited as explaining the expansion of the public sector are warfare and welfare. Surely at the doorstep of defense can be laid the enormous extent of government participation in research and development, arsenal arrangements, purchase and prestockage of critical materials, Atomic Energy Commission, National Aeronautics and Space Administration activities, and the like. It is equally clear that the Tennessee Valley Authority, Rural Electrification Administration, transport facilities, housing and insurance agencies are evolving institutions responsive to the demands of a wealthy and mature society seeking to handle what it sees as its collective obligations. And while it is not central to this article to ferret out and identify trends
lurking in the data on the U. S. experience in public enterprise, suffice it to say that there is currently little evidence of probable great retrenchments in this sector in the near future. The following section treats one important case in point—the activity of the Bureau of Reclamation of the Department of Interior in electric power generation and transmission as it relates to the communications industry.

**The General Case**

The Bureau of Reclamation, in addition to its primary function of reclamation, is engaged in the commercial activity of generating, transmitting, and selling electric power. Its operations are spread over a 17-state area west of the Mississippi. The picture is incomplete without recognizing other agencies engaged in similar activities. These are the Bonneville Power Administration, the Southwestern and Southeastern Power administrations, and the Tennessee Valley Authority. Of the continental United States all but a few states have REA cooperatives. Finally, public power projects proposed or under consideration include rejuvenating the Passamaquoddy tidal water project in northern Maine, a joint desalination and generating plant in the Florida Keys, and hydroelectric plants on the Arkansas, Illinois, Mississippi, and Ohio rivers.

Touching thirteen states, Reclamation's power network and the power lines proposed and under construction are widespread. The system is divided into seven regions, each consisting of a major river basin area and interconnected as indicated. In addition Congress has recently approved a West coast power intertie between the Bonneville Power Administration in Region 1 and the power-hungry states of the Pacific Southwest in Region 2. Further it is planned to interconnect Reclamation with the Southwestern Power Administration, linking together two more federal power systems.

**Presenting** the existing and proposed microwave system of the private carrier Bell system (not to mention the independents) in the same area points up the extent of apparent duplication of facilities that would result from such developments. And it will be recalled that one of the cardinal principles in the rationale of the public utility concept is the granting of area franchises in order to avoid capital wastage.

It is of course not enough to merely assert a trend, and it is the purpose of the next section to examine in detail the bureau's handling of the recent case of the Colorado river storage project microwave communication system (among others) with a view...
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toward discerning outlines of future policy in public ownership in the communications industry.

The Instant Case

The Colorado river storage project designates the Bureau of Reclamation’s power generation and transmission system in the states of Utah, Wyoming, Colorado, Arizona, and New Mexico. A communications system to connect the dams, the electrical substations, the points of generation, distribution, and control was needed which would generally parallel the transmission system. In October, 1962, the bureau advertised for a communications system to be provided either by an equipment manufacturer for government purchase, ownership, and operation or, alternatively, by a service-type proposal from a common carrier with the government neither owning nor operating and maintaining the system. By the actual bid opening date of March, 1963, seven equipment manufacturing companies submitted bids on a government-owned system with a spread of some 123 per cent. The only established common carriers in the relevant areas were Union Telephone Company, which operated in a small area of the proposed route, and Mountain States Telephone Company, operating in the balance of the routing.

Given the technology and the terrain, whichever way the contract went the hardware would be substantially the same—a microwave communication system. Very briefly, this is a special type of high-frequency radio system which allows the transmission of both voice and record communications in mass volume from point to point. In a 1960 decision the Federal Communications Commission, traditionally slow to authorize private communication systems (as opposed to common carrier), had ruled that any business or government unit could operate its own microwave system.7

Union and Mountain States submitted a joint proposal offering to provide the necessary service over existing and new common carrier routes, the rates to be based on a large volume of communications for many customers. The annual billing for the initial known requirements would have amounted to about $227,000, rising to about $383,000 when the full proposed channels would be placed in service. Proposals to furnish full-time government-owned microwave com-
munication equipment included a high bid from Philco of $5 million and from Stromberg-Carlson a low bid of $2,278,364 (including first-year operating costs). The Bureau of Reclamation then evaluated the low bid for purchase and construction of its own system, considering estimates for operation, maintenance, replacement, and ownership costs, and compared this with its computations of annual average costs under the full-time service proposals. The bureau's findings indicated annual costs of $227,600 for a government-owned system as against $405,000 for the telephone company's purchased service.8

On May 22, 1963, the bureau announced in a press release the award of the contract for the provision of a thousand miles of communication facilities in the five-state Colorado river storage project to Stromberg-Carlson stating that "federal ownership and operation would be most advantageous." Mountain States Telephone & Telegraph Company filed a protest of the award, arguing that the bureau's cost analysis was deficient and that its action violated existing government policy—in particular the provisions of Executive Memorandum 60-2 already mentioned.

A. The Economic Argument

While no formal hearing was ever granted the protestants, a good deal of hard information regarding the matter is available in correspondence between the parties to the dispute, the Comptroller General, the Bureau of the Budget, the Secretary of the Interior, legal counsels, and several Senators. Analysis in this and the following section draws heavily from these documents.

Table 1 (page 43) presents the figures of the Bureau of Reclamation in their comparison of annual charges for direct ownership with common carrier service. They assume a 50-year service life for the microwave equipment, a 3 per cent interest rate, and an operation and maintenance cost of about 2 per cent of initial investment. They also exclude taxes foregone in the case of the common carrier comparison. All of these assumptions are open to real question, as we shall see.

To compute costs on the basis of a 50-year equipment life at 3 per cent interest, replacing 40 per cent of the investment every fifteen years (equating to an average service life of twenty-three years), is indeed to dilute the estimate of annual cost of government ownership to an unrealistic level. The present market cost of money to the government is generally agreed to be closer to 4 per cent, and considering the history and current pace of research and development in the communications field it seems extremely unlikely that communications facilities in the year 2015 will bear much resemblance to the microwave system in question. Surely those of 1915 are not recognizable today. Experiences of other agencies concerned with the operation of microwave systems serve to substantiate this point.

The Federal Communications Commission prescribes depreciation rates for such equipment based on average service lives from nine to fourteen years; the Federal Aviation Agency uses a ten-year life; and private users of microwave a range from eight to sixteen years—and note this involves 100 per cent replacement and not 40 per cent.10

Estimates of the true cost of capital to government must take into consideration social costs and not merely market costs peculiar to government. In his frequently cited work on multiple-purpose river development, Dr. Otto Eckstein (presently a member of the Council of Economic Advisers) concludes that the opportunity cost of tax-raised federal revenues is in the range of 5 to 6 per cent when account is taken of all
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classes of interest rates, income and tax distributions. With consumer credit running from 5 to 25 per cent; automobile paper, 9 to 12 per cent; mortgages, 5 to 7 per cent; and the average rate for all personal debt at about 10 per cent, an interest rate of 6 per cent seems not unduly high to attach to public funds when weighing them against the expressed individual preferences of the citizenry.

The implication of this is, of course, that if an improvement in national (society's) economic efficiency is the criterion, only those public enterprises that can provide a rate of return of at least 6 per cent should be undertaken. Another way of saying this is that if the Bureau of Reclamation uses a conventional rate of 3 per cent for purposes of project evaluation, a benefit-to-cost ratio of at least 2:1 rather than simply in excess of 1:1 is required to ensure a rate of return to public capital equal to the opportunity cost of the tax-raised funds.

Maintenance and operating costs of a large microwave system are difficult to pin down because of poor record keeping, differing policies (e.g., preventive versus demand maintenance), varying requirements in the quality and reliability of transmission, and the diverse geographic locations of the facilities. Independent studies and some government operating experiences do indicate, however, that the bureau's estimate of O&M costs equating to 2 per cent of initial investment is decidedly low and virtually impossible to attain over the thousand-mile rugged terrain and adverse climatic conditions applying to the Colorado river storage project. Estimates of microwave users run from 7 to 10 per cent for O&M costs, and the bureau's existing microwave system in Arizona indicates a cost of about 7 per cent. Where labor costs make up the bulk of O&M expenses, it would seem that public operation would have no particular edge here over private comparisons.

Some time over their extended deliberations the Bureau of Reclamation added $20,000 per year (equivalent to one-third of the total O&M costs) to the telephone company proposal for "annual cost to government to administer service contract and to co-ordinate testing, modifications, and other O&M activities." While it is not entirely clear what this was contemplated to involve, in a real cost sense only that amount attributable to administrative activities singular to the two-party relationship should be properly entered in the comparison and not all "co-ordination, modification, etc." This is to say, a portion of this amount should likely be imputed back to the bureau—let us arbitrarily estimate the residual explicit administrative costs at $10,000.

A significant factor ignored by the bureau in its comparisons (the policy aspects of this omission will be treated subsequently) is the substantial refund which governmental units, principally the United States Treasury, would receive through the collection of tax revenue paid by the common carriers. In the case of Mountain States Telephone & Telegraph Company these taxes—federal and state income taxes, property and excise taxes—typically amount to 24 per cent of the total revenues annually received by the company. And of this total

| Table 1 |
|-----------------|-----------------|
| **Government** | **Carrier** |
| **Ownership**   | **Service**    |
| **Investment Amortization** | $110,600 | $9,100 |
| **Replacement** | $58,800 |
| **Operation and Maintenance** | $58,200 |
| **Annual Cost** | $376,700 |
| **Administer Service Contract** | $20,000 |
| **Total Comparative Annual Costs** | $227,600 | $405,600 |

Source, supra, footnote 8.

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over 60 per cent went directly to the Treasury in the form of federal income taxes. Accordingly, for any full cost comparison the common carrier bid should be discounted for taxes foregone—in this instance in the amount of $85,000.

A summary comparison, then, of ownership versus leasing under our revised assumptions of 16-year system service life, a 6 per cent social cost of capital, an operation and maintenance rate of 7 per cent of initial investment, contract administration costs of $10,000, and a tax credit of 24 per cent is shown in Table 2 (this page). The balance is now clearly in favor of contract service from the commercial carrier—a differential on the order of $150,000 annually. The point is that even allowing for significantly more optimistic cost estimates on the bureau’s side, the total comparative annual costs surely do not—as is required—rule against commercial service purchase on grounds that the differences “are substantial and disproportionately large.”

Finally, recalling the earlier references to coverage of Bell system and bureau routes, the traditional subject of the duplication of facilities (and perhaps skills) must be raised. Familiar to all students of the public utility field is the matter of capital wastage that comes with the construction of paralleling systems and the possible weakening of the overall cost position of existing carriers. In such cases, of course, the real social product is zero and may be negative.

B. The Public Policy Argument

The public policy argument on the matter of public ownership in the instant case turns largely on the applicability of the letter and intent of Bureau of the Budget Bulletin 60-2 (previously mentioned) which by virtue of 40 USC § 486 can have the force of law.

On April 1, 1963, the common carriers filed formal protest with the Comptroller General and the Commissioner of the Bureau of Reclamation asking for a full adjudicatory hearing, which was never granted. The ensuing public and private dialogue between the parties is very instructive for our purposes and much that follows is drawn from their several exchanges.

The Bureau of Reclamation in the argument that followed was not sure that 60-2 really applied to its particular case but if it had been complied with. On the other hand (recall the “clear unfeasibility” clause thereon as previously noted), the bureau wrote that “is highly debatable whether the radio microwave system is a commercial activity” under 60-2 since the system was “an integral part of the electrical power generation and transmission facilities.” This argument seems substantially weakened as a reason for rejecting a private bid when we recall that before and after the Colorado storage matter the bureau had awarded contracts to the private carriers for the same service. Further, argument that “the large majority of present and public utility systems and several federal agencies have their own microwave systems as a justification for the bureau’s acquisition one does not square very well with the “burden of proof” being on the government agency.”

Finally, the reliability argument of the bureau does not hold up very well where one considers, for example, that the common carriers handle the most sensitive and important communications requirements of the military, including those of the defense in the North American continent.

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**Table 2**

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<th>Ownership</th>
<th>Service</th>
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<td>Investment Amortization</td>
<td>$281,500</td>
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<tr>
<td>Operation and Maintenance</td>
<td>199,200</td>
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<tr>
<td>Annual Cost</td>
<td>354,500</td>
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<tr>
<td>Credit Total Taxes</td>
<td>$24,400</td>
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<tr>
<td>Contract Administration</td>
<td>10,000</td>
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Comparative Annual Costs | $456,300 | $302,400

Note: See Appendix for computations, page 47.

Source: Revision of Table 1.
It will be recalled that 60-2 states that “to put the costs on a comparable basis” there must be “appraisal of elements not usually chargeable to current appropriations, such as . . . exemption from federal, state, and local taxes.” In their protesting letters to the Comptroller General, the Commissioner of the Bureau of Reclamation, and the Secretary of the Interior, the carriers repeatedly charged that the cost comparisons were unfair because of the exclusion of taxes foregone. The Comptroller General refused to rule on the matter, lamely pointing out that it was an administrative matter for the Executive branch which he would not attempt to judge; the Commissioner wrote that “the bureau does not consider inclusion of taxes foregone as an essential element in its analysis to determine the economics involved”; and the Secretary felt that evaluation of the bids and service proposals had “resulted in an award of the contract to the low bidder.”

While the matter of government policy on its own participation in commercial-industrial activities is subject to continuing review because of its great importance, there have not been many fundamental changes in recent years. Guidelines and emphases have changed some, and some new definitions may be forthcoming; e.g., what are “disproportionately larger” costs and which “taxes.” The Deputy Director of the Bureau of the Budget has testified that the administration was interested in more cost analysis being applied and that “for practical purposes” a distinction should be made between functions that are presently carried on by government and new activities on the realistic grounds that “it is easier to make this judgment with respect to the latter.” He reiterated that the policy remained that “all relevant factors must be taken into account, including pertinent economic and social aspects of public policy.”

Conclusions and Implications

In the instant case of the Colorado river storage project the author’s conclusion is that the Bureau of Reclamation did not demonstrate conclusively—or even persuasively—that government ownership and operation of a microwave communication system as opposed to leasing the desired service from a common carrier was “the least costly choice.” Through its unreasonable operating and system life assumptions, its understatement of the true cost of
publicly raised capital, as well as failure to consider capital wastage through the duplication of facilities, its omission of public receipts foregone, the bureau's cost analysis is woefully deficient on economic grounds. Through its evasive arguments on the applicability of the provisions of Bureau of the Budget Bulletin 60-2 it has given the impression of a desire to circumvent established public policy—and this at a time when the Department of Defense (surely a no less important agency in the economic impact of its activities) is annually reminded of its responsibilities under federal procurement regulations.

I t would be possible of course to view the whole matter as merely another in the long history of examples of the breach between policy and practice. But in a larger sense this particular case may well contain a number of serious implications for the future. One of these is the issue of a government agency making policy by administrative action. For if full and open adjudicatory hearings are not required to be held when an agency’s decision is protested, and if the Comptroller General of the United States and the Director of the Bureau of the Budget are unwilling to rule on the substantive issues, what recourse is there to those who feel aggrieved, other than the remote procedure of appealing to the President or the cumbersome avenue of appeals to Congress? One gathers the impression that Reclamation in this instance was determined to get its own communication system, however tortuous the lines of argument which were required in order to do so—in the classic traditions of Parkinson's Law. The Commissioner of the bureau candidly acknowledged these pressures in testifying:

... I certainly have no closed mind that in every instance we have to have our own communications system. Many of my engineers feel very strongly that even if we could get an offer from the telephone company that was considerably lower than our own system, nevertheless we should own our own system. I do not share that view. (Emphasis supplied.)

A second implication is that the whole public bid procedure is called into question if an agency can exempt itself from the application of confining federal procurement regulations. It seems severely incongruous to state that increased emphasis is to be placed on cost analysis and then allow agencies to exclude those elements which are the real determinants of the outcome of economic analysis.

Finally, with the magnitude of public operations in the electric power and flood-control fields and the evolving integration of these operations into a vast network extending over many regions of the country, it seems likely that the matter of superimposing communications systems on these activities increasingly will confront the policy maker with hard choices between public and private provision. The granting of an occasional communications segment to the private carriers should not be allowed to obscure what may be an emerging trend toward greater and greater government ownership in the communications industry with its attendant implications.

Footnotes

1 Also, in addition to government activities in the product industries, e.g., Government Printing Office; the commercial fields, e.g., insurance and mortgages; and the vast range of defense related activities, e.g., arsenals, there is the special case of government participation in the areas of atomic power development and satellite communications.


3 In this and the following several paragraphs