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United States General Accounting Office
Washington, DC 20548

May 9, 2002

The Honorable Charles O. Rossotti
Commissioner of Internal Revenue

Subject: *IRS Guidance on Economic Analyses in Investment Business Cases*

Dear Mr. Rossotti:

Because IRS plans to spend $2.9 billion over the next 6 years to modernize its information systems, we have reviewed, at our own initiative, the latest draft of the *Investment Decision Management Business Case Procedure*. That document contains guidance for the Integrated Project Teams that prepare business cases to justify information technology (IT) investments. This letter presents our observations on certain aspects of the guidance where modifications or additions would help to ensure that the economic analyses contained in IRS business cases are consistent with commonly accepted principles.

The observations in this letter are based on our review of the draft business case procedure, as it stood on November 1, 2001; relevant guidance issued by the Office of Management and Budget (OMB); relevant economic literature, and discussions with IRS officials from the Office of Economic Analysis under the Chief Financial Officer and from the Office of Financial Policy, Planning, and Programs under the Chief Information Officer. Our review was limited to the sections of the guidance that pertain to fundamental economic analysis. Some of our observations have particular significance for IRS, given its specific mission; the significance of these observations for other government agencies will depend on their specific missions. We did not evaluate individual business cases prepared under this guidance; therefore, we draw no conclusions with respect to any actual investment decisions. We did our work from December 2000 through November 2001 in accordance with generally accepted government auditing standards.

Results in Brief

IRS' draft guidance relating to the preparation of business case documents represents an important step toward ensuring that IRS management has the most relevant available information on which to base its critical IT investment decisions. However, some aspects of IRS' guidance are inconsistent with commonly held principles of public sector cost-benefit analysis. Most important, the guidance does not require the computation of a comprehensive social net present value (NPV), which is the standard criterion for deciding whether a government investment can be justified on economic grounds. The two partial NPV computations that IRS' guidance requires are inappropriate for evaluating investment projects that have significant effects outside of IRS because they do not incorporate the proper values for all relevant benefits and costs. In addition, IRS' two NPVs are not directly additive, so even if all benefits and costs were properly valued, decisionmakers would not be able to determine the overall net value of an investment without going through alternative computations. We make recommendations in this letter to address the problems that we identify.

In your written comments on a draft of this correspondence you said that our findings were valuable for improving IRS business case methodology. You also said that you will fully consider our recommendations as you update your guidance in the coming months. A copy of your comment memo is reprinted in enclosure I.

Background

The purposes of IRS business cases

IRS' IT modernization effort is broad in scope, complex, and high risk. IRS uses a system called the Enterprise Life Cycle (ELC) to plan and manage its modernization program. The ELC establishes a set of repeatable processes and a system of reviews, checkpoints, and milestones that are intended to reduce the risks of system development. Under the ELC, business cases must be prepared and updated at several stages during the development and implementation of each investment project.

A business case is a document that summarizes numerous technical and business work products, analyses, and studies that provide the basis for making investment funding decisions and for monitoring and evaluating project performance. During the earliest planning phase for a project related to IRS' IT modernization program, the project team prepares a "case for action," which includes a high-level summary of the costs, benefits, and risks associated with alternative potential solutions to an identified problem. The Core Business Systems Executive Steering Committee, consisting of senior IRS managers and representatives from the Department of Treasury, the National Treasury Employees Union, and key contractors, reviews this document before approving funding for work on preliminary project design.[1] During the design stage, the project team prepares a preliminary business case to justify its recommendation for a specific solution to the problem. If the Committee approves funding for the next stage, the project team completes the design for the project and prepares a baseline business case to justify the development, testing, and piloting of that specific design. The business case is updated after the pilot is complete and if the project is approved for deployment. For projects with multiple releases, the business case is updated periodically thereafter.

[1] The contractors' representatives are nonvoting members of the committee.

Commonly accepted principles for evaluating government investments

OMB guidance states that "[t]he standard criterion for deciding whether a government program can be justified on economic principles is net present value—the discounted monetized value of expected net benefits (i.e., benefits minus costs)."[2] OMB's guidance further states that "[s]ocial net benefits and not the benefits and costs to the federal government, should be the basis for evaluating government programs or policies that have effects on private citizens or other levels of government."[3] This criterion for assessing government investments is based on commonly held principles of public finance economics.[4]

It is also commonly accepted that "transfer payments" should not be included at face value in the social NPV.[5] Some project effects, such as resource savings, are net gains to society and their full monetary value should be included in the NPV computation. Other project effects, such as changes in tax revenues and interest payments, merely transfer resources among individual members of society. These transfer payments neither use up real resources nor increase the resources available to society. The transfers may achieve other outcomes that are important to society, such as equity. However, the social values of these outcomes are difficult to determine and are not necessarily equal to the dollar amounts being transferred. For example, a project that results in increased tax compliance will transfer resources from previously noncompliant taxpayers to the government for the benefit of the general public. The very existence of IRS indicates that society places a positive value on the aggregate transfer of resources through the tax system, but the value of each transfer is not necessarily equal to the number of additional tax dollars collected. Other types of transfers may have negative social values.

In some cases, even when it is clear how to value a benefit or cost conceptually, the actual quantification of the benefit or cost may not be feasible, or the cost of quantification may be prohibitive. For example, in the case of a hypothetical IRS technology investment that reduces compliance costs for businesses, the social value of each dollar saved by businesses is equal to one dollar. However, it may be impossible to get a reliable estimate of how many dollars businesses save as a result

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[2] *OMB Circular A-94 Revised* (Washington, DC: OMB, October 29, 1992), section 5. The costs and benefits associated with investment projects are typically spread over many years. Discounting (the computation of present values) is necessary to reflect the fact that a dollar of benefit or cost arising in a future year is worth less than a dollar of benefit or cost in the current year.
[3] *OMB Circular A-94 Revised*, section 6. A similar statement is repeated in *OMB Circular A-130*, *Management of Federal Information Resources*, November 30, 2000, section 7.
[4] See, for example, discussions in *Federal Budget: Choosing Between Public Investment Programs* (GAO/AIMD-93-25, July 23,1993); Peter G. Sassone and William A. Schaffer, *Cost-Benefit Analysis: A Handbook* (New York: Academic Press, 1978); John F. Due and Ann F. Friedlaender, *Government Finance: Economics of the Public Sector*, 7th ed. (Homewood, IL: Richard D. Irwin, 1981); Robert Dorfman, "Introduction," in *Measuring Benefits of Government Investments*, edited by Robert Dorfman (Washington, DC: Brookings Institution, 1965).
[5] See, for example, *OMB Circular A-94 Revised*, section 6; *GAO/AIMD-93-25*; and E.J. Mishan, *Cost-Benefit Analysis*, 3rd ed. (Boston: George Allen & Unwin, 1982).

of the new technology.[6] When benefits or costs, including those associated with transfers, cannot be valued and/or quantified, analysts are limited to providing the best available descriptive information about those benefits or costs, as a supplement to the data summarized in the NPV. (For simplicity in the discussion that follows, we will say that a benefit or cost is "measured" only if it has been quantified <u>and</u> the social value of that quantity has been determined).

It is not necessary to compute a comprehensive NPV for all investment decisions. Cost-effectiveness analyses may be used when the benefits from competing investment alternatives are the same or when a policy decision to achieve the objectives of an investment project has already been made.[7] In those cases, analysts are simply required to compare the discounted net costs of alternative approaches for meeting the target objectives.

Some Aspects of IRS' Guidance are Inconsistent with Commonly Accepted Principles of Public Sector Cost-Benefit Analysis

IRS' business case guidance requires the computation of two partial NPVs, rather than one comprehensive NPV. These measures are inadequate for evaluating investment projects that have significant impacts outside of IRS because they do not incorporate the proper values for all relevant benefits and costs. In addition, because they cannot be added together to give a single measure of benefits and costs, they do not provide a clear basis for making decisions. IRS' guidance does not require a supplementary analysis that OMB recommends for certain investments. In addition, IRS' approach to computing cost savings and cost avoidance benefits contains an inconsistency.

<u>IRS' guidance requires the computation of two partial NPVs rather than a comprehensive social NPV</u>

IRS' draft guidance for the preparation of business cases requires the computation of "on-budget" and "off-budget" net present values (NPVs) for each investment being considered. The two NPVs are defined as follows:

> On-budget NPV equals the discounted value of the stream of on-budget benefits generated over the life of the project , minus the discounted value of the project's investment costs.
>
> Off-budget NPV equals the discounted value of the stream of off-budget benefits generated over the life of the project, minus the discounted value of the project's investment costs

[6] This example contrasts with the aforementioned example of increased tax collections, where the collections may be quantifiable but the social value of the quantity collected is difficult to determine.
[7] *OMB Circular A-94 Revised*, section 5. As IRS' guidance notes, a cost-effectiveness analysis is not sufficient for comparing investment alternatives when each alternative produces a mandated benefit, but also produces other benefits that are not mandated.

On-budget benefits are project effects, such as staff savings, that have positive effects on IRS' budget. They do not include effects on other parts of the federal budget. Off-budget benefits are those, such as reductions in compliance burden, that accrue to individuals or entities outside of IRS. The guidance does not indicate whether costs to individuals or entities outside of IRS should be included in the NPV computations.[8]

IRS' NPV measures exclude some benefits and costs that would be included in a social NPV and improperly include transfer payments

IRS' guidance specifically excludes reductions in tax paperwork costs to other federal agencies and state and local governments from their off-budget NPV.[9] These cost savings would be treated as benefits in a social NPV. IRS' reason for excluding these cost savings as benefits is that the savings cannot be expressed in monetary terms. However, it is not evident that these savings are any more difficult to measure than are savings in taxpayer compliance costs, which IRS does count in its NPV.

Some of the project effects that IRS counts as off-budget benefits would not be included in a social NPV because they are transfer payments. Specifically, IRS' guidance includes increased or accelerated tax collections resulting from investment projects as off-budget benefits. These transfer payments are counted, dollar-for-dollar (before discounting), in the off-budget NPV computations. Revenues resulting from improved enforcement technologies would not be valued this way in a social NPV, unless evidence existed that society places a one-dollar value on each dollar of revenue that the government collects from noncompliant taxpayers. IRS has not presented evidence that supports such a valuation.[10]

IRS' guidance does not explain how other broad categories of transfer payments should be treated in the NPV computations. In fact, it makes no distinction between transfer payments and resource savings or costs. Although the guidance mentions reductions in Refund Anticipation Loan fees, which are a special type of interest payment, as an example of a benefit to include in the off-budget NPV, there is no mention of how to treat interest payments in general.[11] Moreover, there is no discussion of whether the loss of income by lenders should be counted as a cost in

[8] IRS' guidance also requires the computation of on-budget and off-budget returns on investments (ROI). These ROIs encompass exactly the same benefits and costs as IRS' NPV; however, they are computed as the ratios of the discounted benefits over the discounted costs, rather than the arithmetic difference between the two. The shortcomings in IRS' NPVs that are identified in this section also apply to IRS' ROIs.

[9] The guidance does not say whether cost savings to third-party reporting entities, such as financial institutions that send information returns to IRS and to taxpayers, which would be included in a social NPV, are to be counted in IRS' off-budget NPV.

[10] As noted earlier, it is difficult to make such valuations. We have found no estimates in the economics literature or any OMB guidance on the social value of a dollar of revenue collected through IRS enforcement efforts.

[11] Tax preparers (in conjunction with lending institutions) provide Refund Anticipation Loans to clients who wish to receive their tax refunds within a couple days of filing. The borrowers, who almost always file their returns electronically, use their anticipated refund from IRS as collateral.

the NPV. Similarly, the guidance does not say how to treat increases or reductions in penalty payments, which are also transfers.

IRS' partial NPVs generally do not provide a clear basis for making decisions

Even if IRS' on-budget and off-budget NPVs included all appropriate social benefits and costs between them, the two measures would not provide a useful summary of the economic value of projects that generate significant benefits or costs outside of IRS.[12] The two measures cannot be added together because the complete investment costs of a project are counted in both of the NPVs and such an addition would result in the double counting of all of those costs. Thus, decisionmakers are not able to determine the overall net value of an investment without conducting an alternative set of computations.

The strength of the comprehensive social NPV is that all measurable benefits and costs are summarized in a single measure that can be easily interpreted. In the case of an investment where all significant benefits and costs can be measured, the NPV shows the true economic value of that investment. Even in cases where some benefits cannot be measured, the social NPV can be useful in conjunction with the best descriptive information available on nonmeasurable benefits and costs. For example, in cases where the measurable social NPV is negative (i.e., measurable costs exceed measurable benefits) and the investment is expected to produce nonmeasurable benefits (net of any nonmeasurable costs), decisionmakers can make a judgment as to whether the nonmeasurable benefits are worth the net measurable costs.[13]

A separate, comprehensive discussion of nonmeasurable benefits and costs, including those associated with transfers, would be useful to decisionmakers when they have to weigh the net nonmeasurable benefits against net measurable costs. OMB recommends a comprehensive enumeration of the different types of benefits and costs generated by a project, whether they can be measured or not. It also notes that quantitative information can be helpful, even if it is not a measurement of social value. Quantities, such as the expected increase in tax revenues, would at least give decisionmakers a sense of the magnitude of the impact.

IRS' draft guidance introduces a calculation called equivalent annual net budgetary (EANeB) cost to deal with cases where the on-budget NPV is negative but significant nonmeasurable off-budget benefits exist. One significant limitation of the EANeB approach prescribed by IRS is that investment proposals are compared with only one alternative that achieves the same objectives simply by adding resources to existing processes. IRS' guidance states that any project can be justified as long as it is less

[12] For projects that do not generate any benefits or costs outside of IRS, the social NPV becomes equal to IRS' on-budget NPV. In those cases, the latter measure is an acceptable criterion for making investment decisions.

[13] IRS' ROI measure (see footnote 8) is not as useful as the NPV in this situation because it does not show how much the nonmeasurable benefits have to be worth in order to justify the net measurable costs.

costly than that one alternative (labeled the “enhanced reference case”). This statement is not necessarily true for two reasons. First, it is possible that neither the proposed alternative nor the enhanced reference case will be justified economically. Second, even in cases where a set of objectives has been mandated (so that an economic case does not have to be made for achieving the objective), there may be several feasible approaches that are less costly than the enhanced reference case. In those cases, unless other factors outweigh cost considerations, it is appropriate to select the least costly approach, which cannot be determined simply by comparing only one alternative to the enhanced reference case. The series of computations and comparisons associated with the EANeB would not be necessary if business cases used social NPVs in the manner described above.

<u>IRS’ guidance does not require a supplementary NPV computation that is recommended in OMB guidance</u>

When a public investment project does not pay for itself completely through cost-savings to the government, taxes are higher than they would have to be in the absence of the project. For evaluations of such investments, OMB recommends a supplementary analysis to account for the fact that taxes generally impose an “excess burden” on society.[14] IRS’ guidance does not require this supplementary analysis. As a result, business cases for some projects could present understated estimates of the true social costs of those projects.

OMB’s guidance reflects the commonly held position among economists that taxes generally distort economic behavior and, thereby, impose efficiency costs on society in excess of the revenues they raise. For example, a tax on income from labor will cause some individuals to work fewer hours than they would have preferred to work in the absence of the tax. Similarly, excise taxes on specific goods lead to the production and consumption of a different mix of goods than would have occurred in the absence of those taxes. In general, these tax-induced deviations from the original preferences of workers, consumers, and producers represent costs to society. The conventional view among economists is that these additional costs to society should be taken into account when evaluating the benefits and costs of public projects.

The supplementary analysis that OMB recommends involves recomputing the NPV by including additional costs equal to .25 times the amount of taxes attributable to the investment. OMB says empirical studies suggest that 25 cents per dollar of revenue is a reasonable estimate of the excess burden of taxes.[15] If specific information clearly

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[14] *OMB Circular A-94*, section 11. OMB does not require this analysis in cases where cost-effectiveness analysis is used.

[15] As more recent literature indicates, disagreement exists over the magnitude of these costs. Feldstein estimates that the excess burden of each additional dollar raised may exceed one dollar (compared to the 25 cents that OMB uses. However, Ng contends that Feldstein’s estimate may be too high because it ignores the fact that tax distortions can also have social benefits. As an example, Ng notes that most production and / or consumption results in environmental disruptions and that these disruptions are reduced by taxes that reduce overall production and consumption. He suggest that these beneficial effects of taxes could offset most, if not all, of the excess burden. See Martin Feldstein, “How Big Should Government Be?” *National Tax Journal*, 50 No. 2 (June 1997) pp. 197-213 and Yew-Kwang Ng,

suggests that the excess cost is lower (or higher) than 25 cents per dollar, an alternative figure may be used. OMB recommends that the recomputed NPV be presented in addition to the standard NPV.

Depending on what information IRS' guidance already requires project teams to compile, the supplementary analysis may require only minimal additional cost to complete. The amount of additional taxes attributable to a specific investment project equals the total public expenditures on the project, minus any cost-savings generated by the project. IRS' guidance already requires project teams to estimate the total discounted investment costs of each project. If the guidance also requires teams to estimate discounted recurring cost savings in an appropriate manner, then those teams could simply subtract those savings from the discounted investment costs to determine the amount of additional taxes attributable to the project.[16] The teams could then complete the supplementary analysis by multiplying that amount by .25 and subtracting the resulting product from their original NPV.[17] This adjusted NPV is likely to be more accurate than the unadjusted NPV as a summary of the project's measurable social benefits and costs.

<u>IRS' approach to computing cost savings and cost avoidance benefits contains an inconsistency</u>

IRS' guidance defines two categories of benefits relating to cost reductions—cost savings and cost avoidance. The cost savings and avoidance benefits are computed relative to a reference level of costs.[18] If the recurring costs for the investment alternative in question are less than the recurring costs in the reference case, then the cost savings and avoidance benefits are positive and they are added into IRS' on-budget NPV for that alternative. These benefits are intended to reflect the fact that technology investments may enable IRS to provide a specified level of service at lower recurring costs than would be possible with the agency's existing technology. However, there is an inconsistency between how IRS' guidance defines cost savings and cost avoidance benefits and how that guidance instructs analysts to compute those benefits.

Cost savings are defined as "a permanent reduction or elimination of *actual* IRS costs due to efficiencies gained through the implementation of new business capabilities." Cost avoidance benefits are defined as "a permanent reduction or elimination of

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"The Optimal Size of Public Spending and the Distortionary Cost of Taxation," *National Tax Journal*, 53 No.2 (June 2000) pp. 253-272.

[16] As we discuss in the following section, the current draft guidance is inconsistent regarding the computation of cost savings.

[17] If a project team has estimated discounted cost savings to government agencies other than IRS, it can also subtract those savings from investment costs when computing the amount of additional taxes attributable to the project.

[18] IRS also makes a distinction between cost savings that are actually taken (i.e., they reduce the size of IRS' budget) and those that are reallocated to another business area. This distinction is not relevant to the problem we discuss here because the cost savings are computed the same way, regardless of how the savings are used.

anticipated (future year) IRS costs due to efficiencies gained within a single business area, thus eliminating the need to hire staff or increase resource levels to meet escalating demand." These definitions (reinforced by specific examples in the text) strongly imply that:

> the sum of cost savings and avoidance equals the recurring costs needed to meet an *escalating* workload with existing technology, minus the recurring costs of the alternative being proposed.

However, the computational instructions in the guidance show that:

> the sum of cost savings and avoidance equals the recurring costs needed to meet the *existing* workload with existing technology, minus the recurring costs of the alternative being proposed.

The correct way to define and compute a cost savings and/or avoidance measure depends on how that measure will be used. IRS needs to compute recurring cost reductions relative to a reference case in order to complete the excess burden analysis discussed above. (See enclosure II for a fuller discussion.)

Conclusions

The business cases prepared by project teams are to be used by IRS managers as the basis for allocating limited investment funds among projects that can cost hundreds of millions of dollars. The economic value of each investment project is one of the most important criteria presented in a business case. For this reason, it is crucial that project teams present the economic values of investments as completely and accurately as possible. We have identified aspects of IRS' current business case guidance that could lead to a misrepresentation of these economic values, primarily in the case of investment projects that generate significant benefits or costs outside of IRS. The changes we recommend below will help to ensure that IRS' guidance provides instructions for presenting the economic values of investments in a manner that is consistent with commonly held principles of cost-benefit analysis.

Recommendations For Executive Action

To ensure that economic analyses contained in IRS business cases provide a sound basis for managers' investment decisions, we recommend that IRS business case guidance

> require the use of a comprehensive social NPV as the basis for comparing the economic values of alternative investment projects that give rise to significant benefits or costs outside of IRS;

> provide detailed instructions to ensure that the NPV includes all measurable costs and benefits to society and does not include transfer payments at their face value, unless evidence is provided to support such a valuation;

require that the NPV be supplemented (in a separate section of the business case) by clear and comprehensive descriptions of all significant transfer payments and nonmeasurable benefits and costs that have not been included in the NPV computation;

require business cases to include the supplementary analysis of excess burden, when appropriate, as recommended in OMB Circular A-94, section 11.

Agency Comments and Our Evaluation

In commenting on a draft of this report, you said that our findings are valuable for improving IRS' business case methodology. You also said that you will fully consider our recommendations as you update your guidance in the coming months.

We are sending copies of this correspondence to the Secretary of the Treasury, the Chairman of the IRS Oversight Board, and the Director of the Office of Management and Budget, and the Chairmen and Ranking Minority Members of the Senate and House Appropriations Committees, the Senate Finance Committee, and the House Ways and Means Committee, as well as its Oversight Subcommittee. The letter will also be available on GAO's home page at www.gao.gov.

If you have any questions, you may contact Jim Wozny or me at (202) 512-9110. In addition, Harold Brumm and Donald Marples made key contributions to this letter.

Sincerely yours,

James R. White

James R. White
Director , Tax Issues

Enclosures - 2

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Comments from IRS

COMMISSIONER

DEPARTMENT OF THE TREASURY
INTERNAL REVENUE SERVICE
WASHINGTON, D.C. 20224

April 8, 2002

MEMORANDUM FOR JAMES R. WHITE
DIRECTOR, TAX ISSUES
UNITED STATES GENERAL ACCOUNTING OFFICE

FROM: Charles O. Rossotti
Commissioner of Internal Revenue

SUBJECT: GAO Draft Correspondence: IRS Guidance on Economic Analyses in Investment Business Cases (GAO-02-234R IRS Guidance on Economic Analyses)

We reviewed the subject draft correspondence and greatly appreciate the time and effort the GAO has dedicated to developing these observations and findings.

The GAO's primary finding was that our current business case guidance on the calculation of net present value could misrepresent economic values for investment projects. This is a concern primarily in those cases where investment projects generate significant benefits or costs outside of the IRS. For example, when an IRS investment benefits a taxpayer, state or local entity, or small business, we should use a "Social Net Present Value" calculation to help us select the best alternative investment. Currently, our business case guidance does not include social net present value.

The GAO's findings are valuable to improving our business case methodology. We have responded to the findings in the attached document.

We will be updating our business case guidance in the coming months and we will fully consider GAO's recommended changes based upon an in-depth analysis of all relevant issues. We would appreciate the continued assistance of the GAO's economic staff to ensure compliance with commonly held principles of net present value analysis.

We look forward to working with the GAO as we revise our guidance. If you have any questions or concerns, please contact Kathleen Turco, Director, Budget Policy, Planning and Programs, Modernization and Information Technology & Security Services at (202) 927-6420.

Attachment

Details on Cost Savings and Cost-Avoidance Benefits

In order to accurately complete the supplementary analysis of excess burden that OMB's guidance recommends in selected circumstances, IRS would have to estimate the amount of additional taxes needed to fund the investment project being evaluated. This tax amount is equal to the total discounted investment costs of the project, minus any recurring cost savings generated by the project. The recurring cost savings must be computed relative to a reference level of costs. The appropriate reference case for this computation differs depending on whether the project being evaluated is designed to meet a specifically mandated workload or whether IRS is proposing an investment to meet a discretionary increase in its workload.

In the case of the mandate, a decision has already been made to reach the specified workload, even if IRS has to use existing technology to achieve it. Therefore, it is appropriate to compute the cost savings and avoidance for each investment alternative being evaluated as the difference between (1) the recurring costs needed to meet the mandated workload with existing technology and (2) the recurring costs of the alternative. In the absence of a mandate, no one has decided that it is acceptable to increase recurring costs to meet a higher workload.[19] For that reason, IRS cannot claim cost savings relative to the costs needed to meet the higher workload with existing technology. It can only claim savings relative to the costs needed to meet the current workload with existing technology.

Except for the adjustment to account for excess burden, there is no reason to compute cost savings or avoidance benefits relative to a reference case for any other aspect of the economic evaluation of projects.[20] In cases where cost-effectiveness analysis is appropriate, the businesses cases need only compare the discounted costs of alternative approaches for meeting the project objectives. In cases where cost-benefit analysis is necessary, the business cases would compare social NPVs for each alternative under consideration. Each NPV would count (1) the discounted net social costs of the alternative in question and (2) the discounted social value of the service that IRS can provide under that alternative. Neither of these types of comparisons requires the computation of recurring cost savings relative to a reference case.

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[19] A full cost-benefit analysis is needed to justify all of the costs associated with the decision to support an increased workload.
[20] IRS may have other reasons to identify a reference case, such as using it as a baseline for tracking project performance during implementation.