Is Capital Project Prioritization a Litmus Test of Rate Base Prudence?

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Much has been written in the last decade about utility capital prioritization methods. There have been debates about point scoring versus cost-benefit approaches, myths about which software will implement asset health and prioritization regimes, and even whether there can be a true certification of asset management methods (PAS 55). We have contributed out share to that public discussion and also advised our clients in a number of significant engagements.

More recently, we have seen regulators and boards of directors asking utilities to provide additional details about their project prioritization methods, especially those which contain elements of cost-benefit comparisons and risk management aspects. The boards of directors have been asking in part because of increased expectations of board governance diligence, especially since the Sarbanes-Oxley legislation. The regulators have been curious for some of the same reasons, but also in the context of whether cost-benefit calculations in capital project prioritization might shed light on the issue of prudency in rate case deliberations, specifically, whether a low benefit-cost score on a project prioritization screening tool might be prima facie evidence of imprudence and therefore disallowance in rate base.

Having been involved in both the development of some of the leading project prioritization tools and also testimony regarding rate case prudence, we feel we can shed some light on the issues raised here.

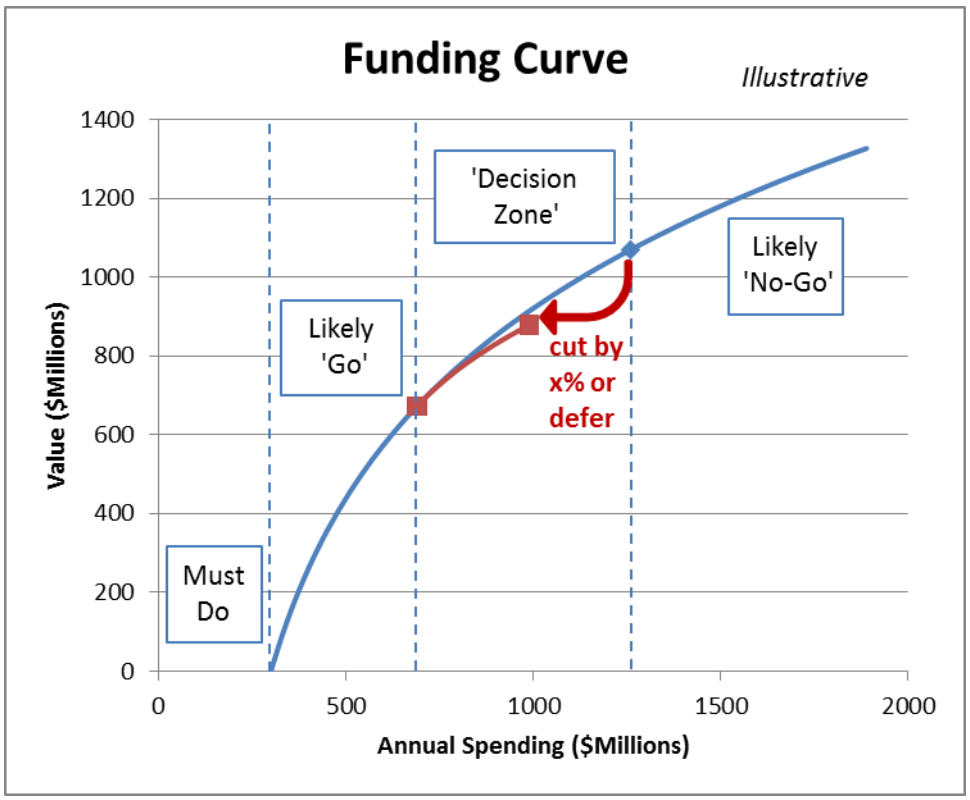
Screening tool or litmus test?

To being with, let us state that this is not an issue in the debate on whether to use point scoring or benefit-cost methods in project prioritization. In either case, a low score (or low benefit-cost ratio) for a project is likely to raise questions of prudence for those who are inclined to view the result as a litmus test of project worth. The problem is not in which method one uses, but in how it is used.

At first glance, it might seem that a low score would indicate that the project should not be done, and raises questions of imprudence. The truth is not quite so simple. A low score does raise questions about the project's advisability, and that is what it is supposed to do in a system of capital prioritization, namely, to invite further scrutiny of the project; but, as we will explain more fully below, it would be wrong to conclude imprudence from such a simple test.

In fact, it would be wrong for a company's management to cancel or defer a project based on such a simple test. Unfortunately, some of the early thinking on and use of capital prioritization did just that, speaking of a "cut line" when viewing a list of projects ranked from highest to lowest score, and imagining that everything below a certain score would automatically be cut (with that critical score perhaps being set by when a certain targeted level of spending was reached). That was and is a very naïve way of using capital prioritization tools. It is as mindless as cutting an organization's budget by

cutting every department or project by a fixed percent: Simple, yes, but not effective, and not optimal in any sense.



Moreover, the notion of a hard and fast cut line is downright silly in another sense: While there may be a large difference between the projects at the top of the ranking and the projects at the bottom, typically the ones in the middle or around the cut line are very similarly ranked, and the difference in value for a project scored 1.00 and 1.01 is really not significant. Choices made as to which of the projects at the margin should be funded or deferred can be made either arbitrarily or with other considerations such as resources or schedule.

How project prioritization should be used

What project prioritization should be is a screening tool for identifying which projects are most worthy of more critical scrutiny. Some projects will rank low because their perceived benefits are low despite a moderate cost. When this happens, the project management office (or whoever is running the exercise) should examine whether such a statement makes sense to those in the know. i.e., do those proposers of the project acknowledge that this was more or less a “nice to have” or “wish list” item? If not, was there some flaw in the method that scored it or estimated its benefits?

Some other projects might be ranked low because their benefits are high, but the costs higher still. This will occasionally be the case when the project has some inherent, unavoidable, high-cost aspect, like a river crossing, property in a dense populated area, unique construction costs, etc. In such cases, the low benefit-cost score should signal a further scrutiny of alternative methods of achieving the same benefits,

and a comparison of the value from this project with others that cost less. For example, it will always be easier to add substation capacity by adding a third transformer in an existing station than it will be to build a new substation, and it will always be easier to build a new substation by dropping one under or near an existing line than by building a new line to reach an outlying area that is experiencing growth. But sometimes that river crossing, new substation, or new line is really an unavoidable obstacle that must be conquered in order to enable future growth or reliability. Sometimes you have to "bite the bullet", "take your medicine", or "pay the price", even though it is painful to do so.

Such hard decisions should be made only after a full peer review of the options and alternatives. But in the end, such decisions may be the prudent, optimal decision, despite their apparent inadvisability in a simple scoring or benefit-cost test. In some cases, a more complete cost-benefit analysis may be called for, one that might involve much more than the simple point scoring or template-based benefit-cost ratios might typically involve. An example of such would be the elaborate cost-benefit analyses that were done for the Smart Grid projects in certain jurisdictions, or the elaborate decision analyses that have been done for environmental controls or plant/fuel mix strategies.

The Deeper Question of Prudence

This gets to the deeper question of prudence. A utility's rate base is made up of investments that have been subjected to a rigorous, tested process that includes not just a simple set of calculations of cost and benefit: it includes the a carefully planned system design, material and equipment standards that meet all regulatory requirements (Federal, state, and local), engineering design integrated with, construction, operations, and maintenance, all with an eye to providing safe, reliable, and affordable service to customers, as measured by rates that have been designed to allocate costs to all present and future customers in a fair and equitable way, and provide an appropriate return to bondholders and shareholders. This is the basis of prudence, not a brief set of calculations done in the spirit of engineering economics.

So is project prioritization not necessary? To the contrary! It is an important part of the entire process by which management ensures that capital is being used effectively and efficiently. It is a screening tool that allows management to focus on those projects that demand further review and the application of experience and good judgment. As we have said elsewhere, the use of such tools does not allow the user to check his/her brain at the door. Rather, it allows good manager to do an even better job of applying good judgment in the light of the focus that is brought to the benefits and costs of each project.

In fact, one could argue that it would be imprudent <u>not to have</u> a project prioritization system, since that would imply that a key component of the required process was missing. It should not, however, be concluded that the failure of a single project to score high on a cost-benefit screening tool necessarily implies that the project should not be done or is imprudent. Use the tool to sharpen your judgment.

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