DEPARTMENT OF ENERGY

Actions Needed to Develop High-Quality Cost Estimates for Construction and Environmental Cleanup Projects

What GAO Found

DOE has not had a policy that establishes standards for cost estimating in place for over a decade, and its guidance is outdated and incomplete, making it difficult for the department to oversee the development of high-quality cost estimates by its contractors. DOE’s only cost-estimating direction resides in its project management policy that does not indicate how cost estimates should be developed. In addition, DOE’s outdated cost-estimating guide assigns responsibilities to offices that no longer exist and does not fully include most of the best practices from government and industry in GAO’s cost-estimating guide. Lacking a documented policy and associated guidance that contain best practices, DOE does not have appropriate internal controls in place that would allow its project managers to provide contractors a standard method for building high-quality cost estimates. DOE has drafted a new cost-estimating policy and guide but the department expects to miss its deadline for issuing them by more than a year.

The cost estimates for the four projects we reviewed did not exemplify the four characteristics of high-quality cost estimates as established by best practices—credible, well-documented, accurate, and comprehensive. The four estimates lacked credibility because DOE did not sufficiently identify the level of confidence associated with the estimates, adequately examine the effects of changing key assumptions on the estimates, or cross-check the estimates with an ICE—an estimate created by an entity with no vested interest in the project. In addition, the four estimates were only partially documented, in part because the projects did not ensure that the contractors thoroughly documented the details of how they developed the estimates. Moreover, all four estimates lacked accuracy because they were not based on a reliable assessment of costs most likely to be incurred. Finally, none of the four estimates were comprehensive; for example, three of the estimates did not include costs associated with the full life cycle of the projects, and the estimating teams’ expertise and compositions did not reflect best practices.

What GAO Recommends

GAO is making six recommendations to improve DOE’s cost estimating. Among other things, GAO recommends that DOE (1) ensure its new policy and guide fully reflect best practices, in part by requiring independent cost estimates (ICE) for its major projects, (2) create a centralized, independent cost-estimating capability within the department, and (3) conduct ICEs for those major projects that have not received one. In commenting on a draft of this report, DOE generally agreed with GAO’s recommendations.

View GAO-10-199 or key components.
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