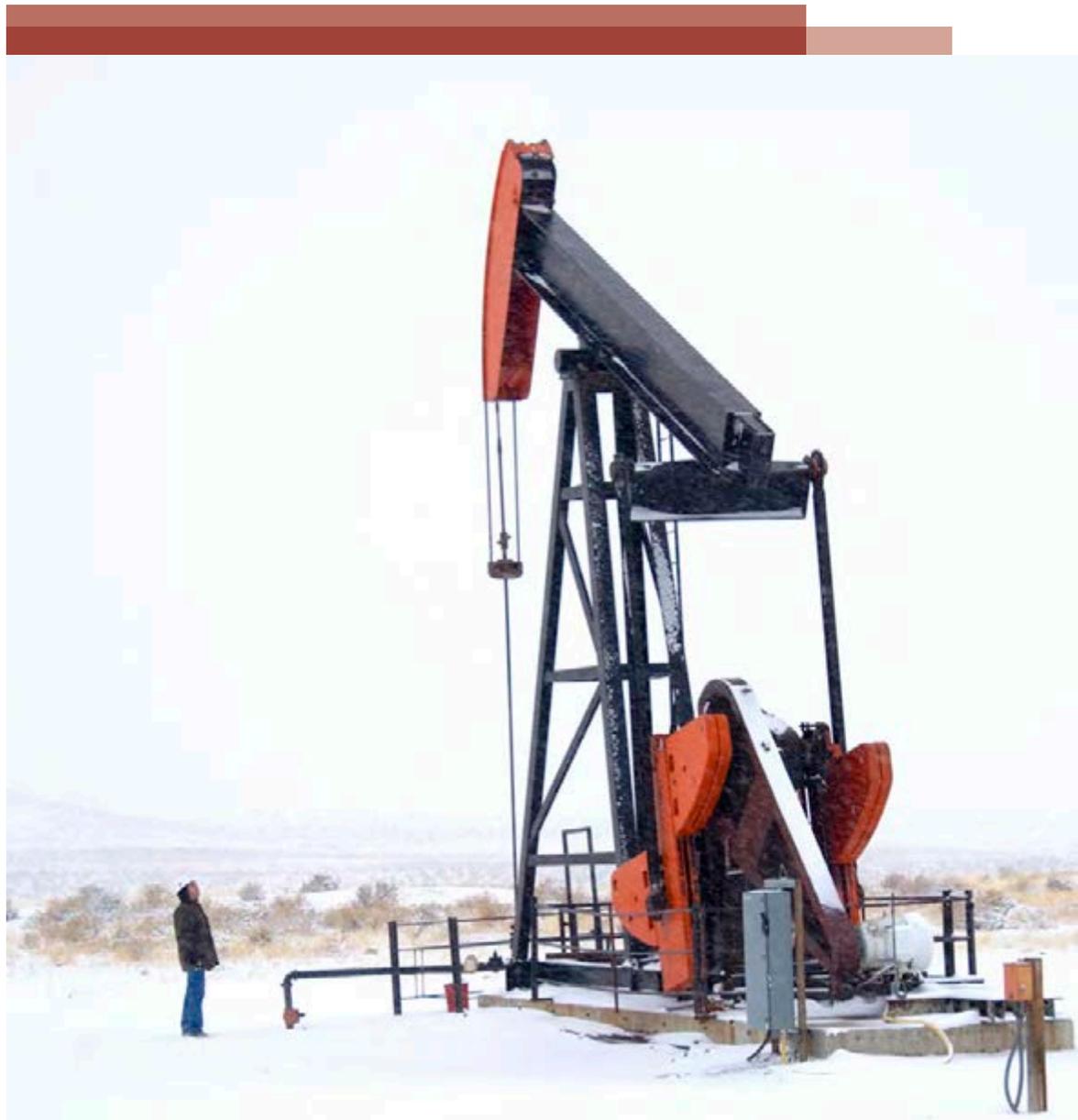


# ***Energy capital projects: Is your board doing enough?***

A user-friendly board guide for effective capital projects oversight

July 2014





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# Introduction

When project risks become enterprise risks

*Capital projects are key to strategy execution; issues with capital project selection and delivery can create enterprise-level risks.*

The board of directors plays a key role in setting and overseeing an organization's strategy, including the planning and execution of key capital projects.<sup>1</sup> Too often boards discover too late that these capital projects are behind schedule, over-budget, or under-performing—posing potentially significant risk to the organization's strategy and shareholder value.

Boards are also finding that even well executed capital projects or programs can be misaligned with strategy. Overseeing a company's capital project development activities can be a significant challenge for directors. Setting and maintaining alignment between strategy and a capital program spanning multiple years can prove challenging.

For many companies, engineering and construction activities are not a core competency, but engaging

in them is frequently necessary to realize the company's strategic goals and objectives. Meanwhile, capital project development is becoming more risky and challenging—as increased globalization drives entry into new and unfamiliar markets, compounded by economic conditions that motivate contractors to shift risks back to owners. And the increasing prevalence of mega-projects (generally understood to be single projects valued in excess of \$1 billion) has turned project-level risks into enterprise-level risks. All of these factors have made board oversight of a company's capital program more critical as well as more challenging.

PwC introduces this guide, similar to PwC's October 2012 *Directors and IT: What Works Best™*, to help boards with effective capital projects oversight.

## Governance and capital projects

In a survey of 36 companies across multiple sectors, PwC found that 75 percent experienced an average share price decrease of 12 percent within 90 days of reporting a significant negative capital project event—such as a project delay, cost overrun, or operability challenge. In one case, the share price decrease exceeded 80 percent.

### Many companies fail to meet project delivery expectations

Only 2.5 percent of 200 companies surveyed by PwC reported that their projects were on time and on budget while staying within their original scope and delivering the expected benefits.<sup>2</sup> In related research, PwC found that 75 percent of projects experienced budget overruns of at least 25 percent. And 50 percent of projects experience budget overruns of at least 50 percent.<sup>3</sup>

### Many companies lack a comprehensive and structured approach to board oversight

In another recent survey, only 18 percent of 400 corporate directors, company executives and advisors responded that their board is “engaged (in capital project oversight) from strategy through execution.”<sup>4</sup>

### Directors report that they would like to spend more time on strategic planning—and capital projects are frequently the realization of that strategy

79 percent of directors would like to spend more time on strategic planning than they have in the past, according to *Boards Confront an Evolving Landscape*, PwC’s 2013 annual survey of corporate directors.

And of that 79 percent, almost a third would like to spend *much* more time and focus on strategic planning than they have in past years.<sup>5</sup> Meanwhile, 53 percent of respondents to PwC’s Center for Board Governance webcast said capital projects are integral to their companies’ growth strategy.<sup>6</sup>

PwC research indicates that failure to meet capital project expectations has a real and measurable impact on share price. Additionally, very few projects achieve the performance standards described when the project was authorized. Regardless, few companies have a comprehensive and structured approach to board oversight of capital projects, even though boards are clear about wanting to spend more time on strategy.

In light of these findings, it comes as no surprise that directors would like to spend more time overseeing their company's capital program. However, many directors do not feel they have the subject matter expertise necessary to do so.

What can the board do to address this? Structured frameworks for project and construction management professionals already exist; however, they are not designed with the board's oversight role in mind. To fill this void,

PwC has developed this guide, which introduces the PwC Capital Project Oversight Framework, to help boards determine what works best to oversee capital projects at their companies.

The Capital Project Oversight Framework is a six-step process that:

- Provides a structured approach for boards to help with their oversight responsibilities,
- Offers flexibility for customization based on a company's specific circumstances,

- Includes leading oversight practices to facilitate discussions with the CFO, project sponsors, company management, or external stakeholders, and
- May help identify capital project issues not currently on management's or the board's radar.

While this report focuses on corporate boards at commercial enterprises, the same principles apply to boards at not-for-profit organizations in their dealings with donors and stakeholders.

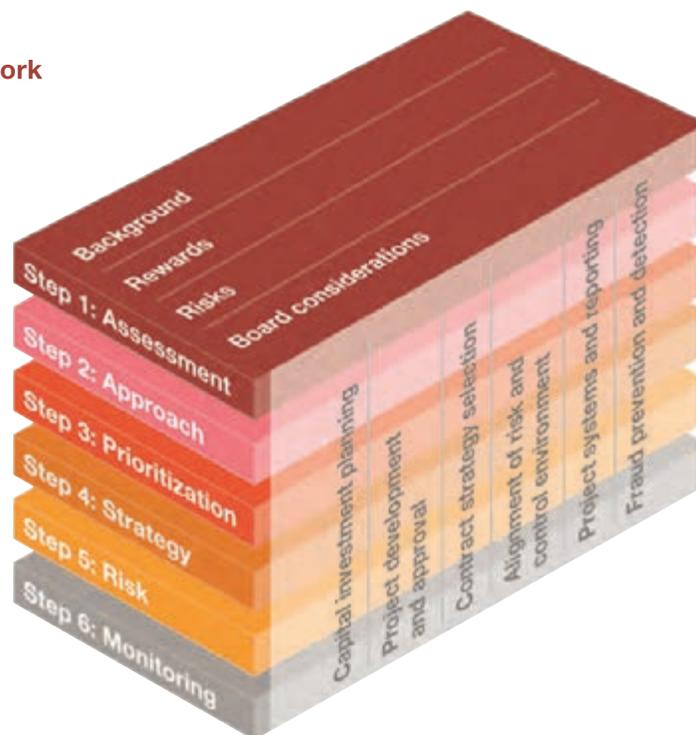
## The Capital Project Oversight Framework A **6-step** process that...

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## ***Step 1—Assessment***

Determine how critical capital projects are to the company and the current state of its delivery capability

It is essential for directors to assess the importance of a capital project or capital program to the company's success before the board can make decisions about its proper approach to oversight. Directors should begin by considering the importance of the project (or program) to the company. They should begin by considering the importance of capital project delivery capability in the company's industry and various attributes of the company's capital program, such as:

- The organization's demonstrated ability to meet board expectations in terms of cost, schedule, and operational performance of previous capital projects;
- The budgeted annual appropriations for such projects; and
- The diversity of the company's project portfolio.

### ***Importance of capital project to company***

Some capital projects are routine upgrade or replacement projects. Others are designed to make a significant impact on new product development or deployment, cost of operations, market entry, expansion,

or other key strategic goals. The more important the project to achieving the organization's strategic objectives, the more attention it should receive from the board.

### ***Delivery capability in the industry***

For some companies, capital project delivery is an essential element of their business model and an integral part of their industry. For example, resource extraction companies are involved in a constant cycle of exploration, production, expansion, suspension, restart, and retirement activities which requires the capital-intensive development of new facilities during the normal course of business.

For companies in other industries, however, capital project development activities are less constant. Utilities often recapitalize their generating stations as old units are retired or when regulations change. This can result in a 5-to-10 year period of intense construction activity, followed by a generation of operations and maintenance with relatively few major capital projects.

Meanwhile, company leaders at other industries may be exposed to capital projects once in a career, such as at companies in industries that typically lease commercial real estate but decide to consolidate operations in a newly constructed headquarters building.

Companies with infrequent capital project activity are often more challenged in capital project delivery than those with more regular activity. However, even companies with regular capital project activity face challenges in delivery, particularly when introducing new technologies or building in remote or new locations.

### ***Company's own delivery capability, including:***

#### ***Organization's demonstrated ability to deliver***

The board should understand management's assessment of the company's project delivery capability and readiness to undertake a major capital project, including:

- Whether the company has existing, formal policies and procedures that guide the team during the execution of its capital projects work,
- Whether and how much vendors support capital project activity, including understanding the alignment of risks and incentives between the vendor community and the company,
- Whether the company has maintained a core team of experienced capital-project-delivery specialists who understand the corporate strategy, culture, and policies,

- The company's historical performance in terms of meeting cost, schedule, and operational performance expectations for its capital projects.
- Whether the capital project introduces significantly new technologies or is being undertaken in new or remote areas.

#### **Budgeted annual appropriations**

The board should understand the size of the capital program relative to the size of the company. As programs and projects become larger, project-level risks become enterprise-level risks and require targeted oversight and input by the board. Larger budgets also typically mean multiple or more complex projects, each of which increases risk of successful project delivery.

#### **Diversity of company's project portfolio**

The diversity of the project portfolio can be measured not only in terms of size, scale, and complexity, but also by geography, technology, vendor pool, and delivery model. When companies are engaged in mega-projects boards can focus their attention on one management team, one delivery model, and one set of reports. We've seen board meetings held at the site of such projects—both to give directors insight into the status of the project as well as to demonstrate the strategic importance of the project to the company.

However, when companies have large programs made up of relatively small projects (for example, construction or remodeling of hundreds of retail outlets), each individual project may be executed under different regulatory jurisdictions, by different contractor pools, or with different contracting strategies or pricing arrangements.

These distinctions create opportunities for confusion, requiring formal and repeatable management activities to occur and reporting to be normalized based on project specific factors. In the case of either a single mega-project or a diverse program, the construction activity is integral to the company's strategic plan and requires appropriately scaled project governance and board oversight to protect shareholder value.

After considering these factors, directors should conclude on the strategic importance of the capital projects to their company—as well as assess whether the organization is well placed to deliver the project(s) on time, on budget and to specification.

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## Step 2—Approach

### Agree on the board’s capital project oversight approach

When deciding on the best approach to capital project oversight, directors should evaluate whether the board or a specific committee of the board should oversee capital projects—and whether the appropriate resources are available. This decision includes considering whether to add capital project expertise to the board or engage external consultants.

#### **Who should provide capital project oversight?**

Thirty-one percent of the 398 participants of PwC’s Center for Board Governance webcast reported that the full board provides oversight of capital projects, while another 31 percent said board-level committees (for example, Finance, Audit, Risk, or a project-specific committee) provide oversight. The remaining 38 percent indicated that they were not sure who was responsible for oversight of capital projects or that it was not performed by the board or a board-level committee.<sup>7</sup>

Regardless of whether the entire board, a committee, or others are given the oversight task, the board should consider the backgrounds and experience of existing directors to decide if they have the skills necessary to oversee capital projects. If not, the question is whether the board

should add capital project expertise, particularly for companies that have assessed capital projects as a strategic priority or for those that recognize current or planned capital project activity represents an enterprise-level risk. If so, there are a couple of options:

- *Bring capital projects experience onto the board:* Boards can dedicate one or more seats to someone with capital-project-delivery background such as a former construction company executive, a former project sponsor, or a director that was previously responsible for oversight of major capital programs. Some boards have sought experts with specific project governance expertise. For companies that consider capital projects critical, having such a resource may be particularly important.
- *Use outside expertise:* At companies that do not feel an imperative to develop capital project delivery capability as a core competency but are still engaged in a significant capital program, a more measured approach to capital project oversight may be to seek the expertise of external consultants. In our experience, boards frequently engage consultants to advise them on the

Donald Campion is a director at four companies: Haynes International, Inc., which makes temperature- and corrosion-resistant alloys; Key Plastics LLC, an auto industry supplier; Grede Holdings LLC, a supplier of metal components to the transportation and industrial sectors; and Super Service LLC, a trucking company. In 2012, one of the boards on which Campion serves was called on to approve a major capital project.

“It wasn’t business as usual,” he says, “so the board had a lot of questions over the course of several meetings. Finally, we decided to put together a Special Committee for an intense review of the proposals in the context of our long-term business plan.” Campion was appointed chairman of this committee, a subset of the board.

“We addressed all the concerns of the board members before we approved the capital project,” said Campion, after which the Special Committee was disbanded. “But if we hadn’t created the Special Committee, we would have dealt with a lot of frustration and we might have lost a great opportunity.”

Campion echoes 40 percent of respondents to *Boards Confront an Evolving Landscape*, PwC’s 2013 annual survey of corporate

directors, who believe there is room for improvement in the allocation of specific responsibilities for overseeing major risks among the entire board versus its individual committees.<sup>8</sup> Often, an ad hoc Special Committee—such as the one Campion describes—becomes necessary.

The entire board now receives quarterly updates on the capital project, according to Campion. That schedule will continue until completion, slated for 2014. The updates tell the board “where we stand, what’s changed, and whether we’re on track or not,” he says.

“If you don’t have board members with specific industry experience, sometimes, that creates an even larger chasm between management and the board,” says Campion. “We needed someone with specialized experience at one point, and we were aware of a top executive who had retired recently from a company in a related industry. We hired him as an external consultant to help us sort through some strategic issues.”

An objective external perspective can provide the board with an independent point of view on the progress of a project and the challenges ahead—well before these challenges become full-fledged problems. Equipped with the appropriate information, the board and management can steer the project team back on track.

validation and resolution of reported issues after a problem has occurred, but too frequently these reports come after significant costs or delays have been incurred, impairing the board’s ability to respond and mitigate the impact of the issues. If a board has assessed that a capital program could pose enterprise-level risk to a company (Step 1) but has questions about its ability to provide oversight, they should proactively

seek outside assistance rather than wait for a project to become troubled before taking action.

External consultants can be retained by the board’s Special Committee, by management, with a board reporting responsibility, or through the board’s Audit Committee—in all cases to conduct ongoing reviews of the project to identify and stem issues before they become major risks.

### *How often should directors discuss capital projects?*

The frequency and intensity of board involvement in capital projects depend on the level of activity and a program or project’s risk profile throughout its life cycle—from pre-concept to the final post-implementation review.

Many companies have a “stage-gate” approach to project approval, requiring an incrementally refined level of scope and estimate detail for each successive tranche of funding or approval to the next stage. Depending on a company’s delegation of financial authority guidelines and the size of a proposed investment, these activities may require board level approval and should be conducted in the normal course of board activity.

Once the board approves a project and determines who will provide oversight, directors should decide on the timing and format of project reporting, how often to meet and discuss capital project issues, and when to communicate with the project sponsor. The amount of time the board should spend on capital project oversight increases in line with the importance of capital projects to the company.

In our experience, responsible directors receive updates at least quarterly when mega-projects (or a large portfolio of smaller projects) are underway—and more frequently after issues have been identified and corrective action is in progress. Reporting associated with smaller or more routine programs should be provided in the normal course of business.

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## Step 3—Prioritization

Identify the level of board involvement in key capital project activities

Now that the approach to capital project oversight has been decided, the group charged with oversight responsibility needs to prioritize which components of the capital project delivery life cycle require their greatest attention. The following activities associated with capital project development typically require board involvement:

Development activity	Board considerations
<b>Capital investment planning (CIP)</b> Capital investment planning is used to identify, evaluate, prioritize, and select investment opportunities necessary to fulfill capabilities required to meet a company’s strategic plan.	Investments should only be made to meet defined business objectives. If a project cannot be linked to a strategic goal, it is inappropriate to make the investment.  For each capability gap, a number of investment options other than a capital project may exist and should be considered.  Leading practice CIP processes include a feedback loop from project management so that continued funding of ongoing investments can be reviewed for alignment with current strategy and evaluated against new opportunities.
<b>Project development and approval</b> Incremental planning and design activities encourage orderly development of a project while enabling directors to make informed decisions about interim funding authorizations and allowing for project “off-ramps” prior to full fund authorization (i.e., “sanction”).	The capital project delivery life cycle is typically measured in years. Using an incremental development approach [often referred to as “stage-gating” and including activities such as “front-end loading” (FEL) or “front-end engineering and design” (FEED)] mitigates the risk of having prematurely committed to a project when economic conditions or company strategy change.  Progression beyond each stage-gate requires the management team to provide a status update and additional project details to the board, supporting a “no-surprises” culture.  “Optimism bias,” the tendency to overstate benefits and understate costs or risks, is common during project development activities. An incremental planning process provides more insight to directors to identify and resolve estimates impacted by this bias.

After considering these and potentially other aspects of the capital project development life cycle, the board members responsible for oversight of their company’s capital program should decide which areas deserve the most attention. They should prioritize these areas for evaluation to use their time most efficiently.

Development activity	Board considerations
<p><b>Alignment of risk and control environment</b>            Various project, owner, and market drivers define a capital project’s risks which are subsequently allocated to and controlled or monitored by appropriate project participants.</p>	<p>Directors must establish and communicate clear guidance regarding the company’s risk appetite to avoid assuming unintended risks.</p> <p>Risk allocation decisions should consider who is best capable of mitigating the risk and how parties will be compensated for risk assumption.</p> <p>Owners must establish control environments capable of controlling retained risk and capable of monitoring risks transferred to others.</p>
<p><b>Contract strategy selection</b>            Contracting strategy defines the scope of the work to be procured, the delivery model, and the pricing arrangement. The contract governs the relationship between and defines the risk allocation amongst the counterparties.</p>	<p>Legal, financial, and practical considerations limit the risks owners can transfer to counterparties through contracts. This is even true when hiring a construction management firm to oversee project delivery.</p> <p>To the extent possible, incentives of each party should be aligned. Misaligned incentives will result in conflict and reduce the likelihood of project success.</p> <p>While vendors typically perform the bulk of the work, directors must remember the organization owns the project, not the contractor.</p>
<p><b>Project systems and reporting</b>            Clear, concise, and reliable project data is necessary to evaluate progress, make decisions to continue funding, and to forecast potential costs. These systems can be fit for purpose but should be designed to provide transparency, ensure accountability, and maintain an audit trail of project activities.</p>	<p>The board relies on the integrity of the data to make decisions on the project at each milestone. When they don’t have the right information they can’t make the right decision.</p> <p>If data systems are not integrated or the company is relying on offline or manual tracking of information, project owners and managers expend extra time and resources to compile information to be reported to the board.</p> <p>High-quality data can be used to provide feedback on CIP and project development activities, improving the future allocation of resources.</p>
<p><b>Fraud prevention and detection</b>            The engineering and construction industry is fraught with fraud risks; acceptable business practices in some countries are illegal in others.</p>	<p>According to the Association of Certified Fraud Examiners, Inc., current statistics suggest fraud accounts for 10 percent of construction costs.<sup>9</sup></p> <p>Increasing globalization and associated capital project development is increasing exposure to criminal and reputational risks—via anti-bribery and anti-corruption initiatives such as the Foreign Corrupt Practices Act, the Conflict Minerals Rule, and the UK’s Bribery Act—and accompanying high-profile lawsuits.</p>

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## Step 4—Strategy

### Align capital project activities with strategy oversight

More than half of the 398 participants in PwC's Center for Board Governance webcast said capital projects are integral to their companies' growth strategy. "It's not just about setting strategy," says Mary Ann Cloyd, Leader, Center for Board Governance at PwC, in discussing the board's role. "It's also about the execution of the strategy."<sup>10</sup>

And as PwC analysis has shown, the markets reflect the impact of a capital project gone awry with declines in share price because a derailed capital project represents a threat to the execution of the company's strategy.

"Capital investments should only be made to meet a defined business objective that is aligned to overall strategy," says Peter Raymond, Leader, US Capital Projects and Infrastructure at PwC. "In fact, corporate boards and executive leadership should first define the business objectives to be accomplished, then determine how select investments will fulfill those objectives before embarking on a capital project. Otherwise, the project will not accomplish the desired objective even if it is successfully delivered."

Directors should ensure that capital project considerations are integrated into the board's ongoing review of the company's strategy. The more critical capital projects are to the company, the deeper the board should probe the company's capital investment plans and ongoing projects to facilitate execution of an effective strategy. When strategies change, it may be necessary to alter that capital investment plan and even suspend or cancel ongoing projects to efficiently allocate resources among the company's often competing priorities.

Says Rick Mills, a director at industrial products maker Flowserve Corp. and steel company Commercial Metals Co., "We spend a lot of time during the early stages of a project discussing why we're doing this and our expectations around markets, customers, revenue and the life-cycle of the facility." He explains that after defining the parameters of the project, the board then estimates the scope of the investment and estimates how long the project will take from start to finish, what the return on investment will be and how long it will take to realize that return.



Some questions the board might ask include: “Will this facility serve our needs well into the future?” or “Do we need an entirely new facility or do we want to expand the facility we already have?”

“We really want to understand the strategic alignment of the investment before we authorize management to pursue it. We never want to hear about a project when we have to make a decision about it the next week,” he adds. Mills chairs the Board’s Audit Committee at Flowserve and serves on both Finance and Audit committees at Commercial Metals. “We are very selective about the kinds of projects we pursue because we want to make sure we have the right margins and get the right returns on the investments we make,” he says.

The starting point for directors is an understanding of the company’s capital plan and its alignment with the company’s strategic plan—both

in the short and long terms. “The board is best positioned to take a big-picture view of how a capital project fits into the company’s overall strategy, balancing risks and opportunities,” says Tony Caletka, Principal, PwC Capital Projects and Infrastructure.

Companies can make capital project delivery capability a competitive advantage, enabling them to provide the same or better service to their clients at less risk and lower cost to shareholders. Effective capital project performance occurs when an organization is aligned from strategy through execution—with everyone having a clear understanding of their roles, including the impact on project outcomes.

Viewing capital project delivery as integral to the company’s strategy better allows the board to recognize the potential benefits of improved performance and the effect that capital project delivery can have on the bottom line.

## Step 5—Risk

“Bake” capital project delivery into risk management oversight



40%

*...of directors believe there is room for improvement in risk oversight allocation among the entire board versus its individual committees.*

Capital project risks need to be included in the company’s enterprise risk management plan, especially as the size and complexity of the capital program increases.

As capital project activity increases within a company, associated risks also increase. To understand these risks, boards must first have an understanding of emerging trends in the capital construction market, such as:

- Is the construction market overheated to such an extent that contractors cannot be expected to accept lump-sum contracts (and their associated pricing risks) without including excessive premiums?
- Will local labor shortages create the need to import travelling laborers or is the work so remote as to require a fly-in/fly-out program?
- Will local political and community leaders support a project of the proposed scale and how would local opposition be managed?
- Given the current state of the market and how these factors will shape the project plan, is the owner prepared to assume and control the necessary risks?

The reasons for capital project failure are generally well understood; yet, capital projects continue to fail to meet their defined goals and objectives. Some of the more enduring capital project risks include:

- Global talent shortages, particularly for engineering and skilled labor positions;
- Local interferences, including community resistance or historical or environmental land use restrictions;
- Optimism bias—the tendency to overstate benefits and minimize costs or risks;
- Misaligned incentives between owners and the vendor community combined with insufficient owner oversight of vendor performance;
- Consumption of project schedule contingency (float) early in a project, leaving little margin for error during construction and commissioning;
- Proceeding to execution stage with incomplete design documents and insufficient financial contingency; and
- Lack of the accurate and timely reporting required to allow executives and directors to make informed management decisions.

*More companies are embedding good risk management practices into their day-to-day activities, with enterprise risk management now a common boardroom discussion, according to Bob Moritz, Chairman and Senior Partner, PwC US.<sup>12</sup>*

Effective risk management requires identifying the most significant project and program level risks, the probability of a negative event occurring, and the estimated impact if it does occur. In order to mitigate optimism bias, boards should make sure that key individuals outside the project team have input into the risk identification and management processes.

These individuals should not have a proverbial “dog in the race.” That is, they should have no incentive for the project to proceed or not proceed, but should be capable of independently identifying and assessing impediments to success with a healthy dose of professional skepticism.

Boards are best served by identifying for management the specific information they would like to receive to effectively oversee the capital project risk management process. Such a list can include:

- Earned value management data, such as schedule performance index (SPI), cost performance index (CPI), forecasted budget at completion (BAC), and scheduled completion date;
- Status of high-priority risks including insufficient vendor performance and available mitigation strategies (for example, exercising bonds, letters of credit, or options regarding the replacement of a vendor);
- Evaluation of the sufficiency of contingency funds based on remaining contingency and current risk profile;
- Scope of internal and external assurance activities and related observations; and

- Notification of disputes or potential claims with vendors.

Companies should consider how high-priority capital project delivery risks can best be mitigated through effective internal controls. As discussed earlier, to the extent possible risks should be allocated to those best capable of mitigating them. But even when owners transfer a risk and allow it to be controlled by others, they retain the obligation and the right to monitor that risk to ensure that the counterparty has not constructively transferred it back to the owner through changes, non-performance, or the explicit or implicit consent of the project team and contract administrators.

Construction is too fraught with risk to ignore crisis management as part of the risk management plan. Project teams should identify low-probability/high-impact risks (for example, extreme weather events, political upheaval, or contractor default) and have contingency plans in place should they occur. These risks cannot typically be avoided or managed, but management should be prepared to respond to them and notify shareholders about how the company will mitigate the impact of these events. In extreme cases, project owners have re-assumed control of their projects from vendors and some projects may need to be shut down or abandoned.

While none of these scenarios will likely result in a project achieving its goals and objectives, failure to respond can result in continued exposure to the

risk event, reputational damage, and greater impairments in shareholder value. In more than one situation, CEOs and even board members have lost their positions when significant capital projects became troubled.

“Large capital projects, by their nature, tend to be long-term,” Craig G. Matthews, a director on the boards of energy companies Hess Corp. and National Fuel Gas Co., said. “Factors beyond your control can impact them. For example, look at the financial crisis and the dramatic change in interest rates since then.”

Matthews adds, “Many of these factors are beyond a board’s control, but they should at least assess the risks involved and mitigate them where they can. For example, hedging against interest rates or energy cost fluctuations.”

The vast majority of US CEOs agree with Matthews: 90 percent of US CEOs in PwC’s 16th Annual CEO Survey worry about uncertain or volatile economic growth.<sup>11</sup> However, they also recognize that economic uncertainty is now a way of life. These wider risks, as Matthews points out, could well affect the outcome of a capital project.

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## Step 6—Monitoring

Adopt a continuous process and measure results

“In many respects, the board represents the final line of defense in delivering the project’s intended value to stakeholders,” says PwC’s Raymond. Board oversight should ensure alignment and control of capital project development activities from strategy through execution and should be supported by the C-suite and senior management. As the size and scale of a company’s capital program changes, directors should ask themselves if and how these changes should affect the planned level of board oversight of the capital plan.

Decisions about how critical capital projects are to the company (Step 1), the board’s approach (Step 2), identification and prioritization of the most relevant capital project oversight areas (Step 3), and the integration of capital project activities into strategy and risk management (Steps 4 and 5), should be revisited at least annually. To assist in ongoing monitoring, directors may want to:

- *Consider regular updates on planned and ongoing capital projects to address whether the program is being implemented effectively:* Directors should define how

often they will receive these updates from management. The frequency of board discussions with project sponsors and the number of hours spent addressing capital project issues may also need to be readdressed based on changing facts and circumstances.

- *Determine which key performance indicators (KPIs) and metrics they expect to receive from management so they can oversee capital projects effectively:* It may be helpful to create a director’s dashboard to capture these metrics. Directors should also keep in mind that capital projects experiencing challenges on one KPI frequently affect other KPIs. For example, when a project is at risk of missing deadlines, the project management team might accelerate the schedule, thus triggering additional costs. Directors should recognize that a lagging indicator in one area may be a leading indicator of future challenges in other areas.
- *Engage independent assistance when necessary:* Optimism bias is real but does not necessarily stop after a project is sanctioned. Incentive alignment is crucial, not just among parties to a contract, but also



between the individuals assigned to a project and their employer. Project management teams frequently understand the impaired state of their project long before they report it to the board. Senior project managers may feel that they can resolve the issue in the normal course of business or even that their career is on the line.

By defining and implementing a monitoring process that corresponds with project objectives and works best for the size and scope of a particular company's capital program, the board

can best oversee capital projects over the long term. Ongoing monitoring of the effectiveness of the company's capital project activities should be supplemented by a continuous evaluation of the board's oversight process.

Not only do the strategy and economic conditions evolve, the composition of the board and its level of capital project expertise also fluctuates. Periodic checks of the framework will provide directors with the confidence they need to oversee their company's capital program.

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## The bottom line

*“Listening is extremely underrated.”*

— *Herb Gaul, Director*

Ultimately, capital projects are vital for continued growth and realization of a company’s strategy. However, they do require careful forethought, comprehensive planning, and vigilant monitoring. Responsibility for day-to-day decisions lies with the project management team, but it is up to corporate directors, to ask the right questions of management—questions that ensure project performance meets strategic goals while conforming to the company’s overall tolerance for risk.

Not every board member may have the specific combination of background

and industry experience to ask the right questions. However, says Herb Gaul, a director at Berry Petroleum Co., “I would say my most valuable lesson has been listening to the questions from the directors who have the expertise, listening to the responses to those questions, and then formulating my own set of questions.” He adds, “Listening is extremely underrated.”

Where capital projects are concerned, effective board oversight can make a significant difference to the company’s ability to set and execute its strategy.

### Endnotes

- 1 We define “capital projects” as strategic and/or large scale projects involving the design, construction and delivery of plants, facilities and other capital assets. “Capital programs” are a portfolio of capital projects.
- 2 PwC, *Boosting Business Performance through Program and Project Management*, June 2004.
- 3 PwC, *Correcting the Course of Capital Projects*, April 2013.
- 4 PwC, “Center for Board Governance Quarterly Webcast: The Board’s Role in the Oversight of Strategic Growth Through Capital Projects and Other Significant Transactions,” April 16, 2013, <http://www.pwc.com/us/en/cfodirect/events/webcasts/the-boards-role-in-the-oversight-of-strategic-growth-through-capital-projects-and-other-significant-transactions-april-16-2013-webcast.jhtml>.
- 5 PwC, *Boards Confront an Evolving Landscape: PwC’s Annual Corporate Directors Survey*, 2013.
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