





SHIFTING GEARS: *Invest in a Plan That Pays*

The world as we know it changes constantly, demanding adjustments across all industries to survive and thrive. These shifts can cause seismic rifts in how industries approach every aspect of business, infrastructure, technology and more — leaving leaders to determine how to prioritize and pay for it all.

To maintain nimbleness as outlooks evolve, strategic capital planning has emerged as an even more valuable, ever-present necessity. From hands-on pre-capital consulting and continuous lean assessments to integrated technology suites for gathering and assessing data, strategic capital planning can help companies in any industry. »

A SHIFT IN *Evaluations*

Having a capital investment plan in place doesn't necessarily mean it's the right one for a business year after year. Best practices might have changed since the plan was developed, or unexpected demand for a product could adjust priorities in a particular year.

To bolster confidence in capital expenditure and to make sound investment decisions, pre-capital consulting encourages companies — often in the manufacturing of food and consumer products — to take a step back and truly understand what goals they need to accomplish.

The pre-capital consulting process involves a hands-on partnership based on listening first.

“In order to help companies make key decisions for their operations, we listen to gain the information needed, determining what their capacities are now and what they need to be in the future,” says Mal Warrick, a pre-capital consulting manager for Burns & McDonnell.

This consultative approach brings all the necessary data and objectives to the table, allowing a pre-capital consultant to develop a model or simulation of how a decision could potentially grow the company's business.

“We present all the data we receive and discuss conceptual layouts, options and a recommended direction,” Warrick says. “With enough data, we can discuss rate of return on invested capital potential. That way the company has an informed view of the project before even getting started.”

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In all, pre-capital consulting is a process to slow down and evaluate the road ahead for projects. While this may be a potentially difficult pace for manufacturers and others that identify time as money, this shift in timing and expectations for projects could save a company from investing in an ill-advised pursuit.

For example, a company set on a facility expansion based on high-level cost estimates could realize during pre-capital consulting that the actual cost would be significantly higher than its anticipated threshold. Realizing this disparity before beginning the expansion project would not only save the company money but also provide an opportunity to develop an alternate project — one within budget.

“In the context of helping companies be more competitive, pre-capital consulting will evaluate if a capital option is needed or not,” Warrick says. “It will provide an affordable assessment of actual cost projections and available options.” »





A SHIFT IN *Efficiencies*

A Lean Six Sigma evaluation is a process-focused efficiency initiative. The term “lean production,” coined in “The Machine That Changed the World,” a book about Toyota’s manufacturing processes, now is a common principle amongst manufacturers.

“Lean is the continuous search for the best process,” says Jeff Green, a lean manufacturing project manager at Burns & McDonnell. “And the best process is defined by the least amount of waste.”

A lean assessment looks to reduce all common forms of waste, from transportation and motion to inventory and overprocessing or overproduction. Armed with a toolbox to resolve challenges, a professional with lean

training can come on-site to conduct process mapping and value stream mapping to uncover waste — and devise and execute an improvement plan. This universal plan requires nimbleness, however, to apply these standard tools to each company’s unique processes.

It also requires a shift in company culture.

“Becoming a lean company is a cultural effort,” Green says. “It’s not just a series of process improvements. Rather, the company really has to work on it for a long time to get good at it. Company culture is clearly the difference between the companies that succeed with lean and those that don’t.”



Learn how a Lean Six Sigma evaluation could optimize operations — providing shorter lead times, better on-time delivery, faster cash conversion and greater product control — at burnsmcd.com/GetLean.



A prime example of full company culture adoption for success is the founding company of lean principles, Toyota. During a joint venture with General Motors in the 1980s, Toyota willingly shared its lean insights. When asked if he had any concerns about divulging company secrets with a competitor, the chairman of Toyota scoffed, responding that no other company in the world could accomplish the culture Toyota had.

“The chairman of Toyota understood that lean was so much about culture that he wasn’t even afraid to give it away,” Green says. “Companies may do lean events, but you have to do them over and over again to develop that skill set with every employee. It takes years to become a lean company. It’s not an easy undertaking.”

Although difficult to fully implement, the value of a lean culture is so evident that it even has spread to industries beyond manufacturing. Transactional companies, such as financial institutions, are now pursuing lean principles to eliminate waste in their processes. Any company in search of efficiencies — and with a strategic, forward-thinking culture — can adopt a lean mindset, especially for capital planning. Marrying this long-term initiative with the multiyear thinking required of capital planning can provide a detailed strategy for a company culture committed to sticking to the long-term plan. »

A SHIFT IN *Expectations*

Building confidence in a strategic capital plan starts with data — accurate and relevant data. In the past, such data would come from individuals on-site and ladder up to the decision-makers allocating funds. While on-site experience and insight is valid, it often is not consistent across the organization and will not be as granular as digital data can be — and definitely won't be found all in one hub for easy access.

“A challenge many companies encounter is, even though they have asset management systems, they don't necessarily have all the information needed within those systems to make the best decisions,” says Steve Dresie, a software and technology consulting leader at Burns & McDonnell. “They need to know the condition of all assets and equipment across all sites — whether any are likely to fail or lack redundancies, and the revenue they generate.”

However, as data-gathering technologies recently have become more common, expectations have shifted across industries. Rather than putting the burden on each company to configure and maintain its technology correctly, demand has awakened for a turnkey solution backed by specialized industry knowledge. Therefore, no matter the industry — from transportation and power generation to consumer product manufacturing and airports — the platform will be preconfigured to each client's needs and each industry's best practices.

“These new turnkey solutions include algorithms that combine technology and industrial expertise,” Dresie says. “That way the company only has to connect to its asset list and make minor weighing adjustments to be up and running. Using this platform, we could have a company with more than 50 sites up and running in a couple months.”

In the first budget planning cycle, collecting and analyzing the data in this manner unlocks insights that get better over time. As additional data is collected and assessment methods are refined in subsequent budget cycles, decision-makers are further empowered to make data-driven decisions of where money should be allocated and where adjustments should be made.

For example, data might show the current production rate of a process line, but the manufacturer could be considering adjusting it to produce at double that rate. Will the data indicate a direct yes or no? Of course not. But it will provide a rational assessment of that line's breakdown history and equipment age, confidently pointing the manufacturer to the conclusion of building a new production line.

This granular data might seem too in the weeds to be relevant or require too much time to be effective, but its value can be seen very quickly.

“Yes, focus starts on individual assets,” Dresie says, “but we're enabling much higher-level planning. If a company can make a 2 to 3 percent efficiency gain on a \$1 billion maintenance spend annually, that really adds up.”

A SHIFT IN *Confidence*

No matter the specific method or technology chosen, strategic capital planning bolsters confidence in business decisions and the corresponding budgets for execution. And with efficiencies to be gained, any company can confidently improve its outlook. ●





SHIFTING TO ACCOMMODATE *Electrification*


Capital and project investment prioritization is a delicate and ongoing balancing act for utilities. Focused on load growth support, reliability, maintenance and customer service, utilities constantly must determine the right capital and maintenance monetary deployment for their distribution, transmission and generation systems.

To wrangle this potentially unruly situation, a variety of planning processes and analyses flow into an overarching financial plan, including *the items to the right*.


The information obtained in these areas then influences the final execution and funding determinations. This intricate evaluation and planning process is essential for the proper allocation of a utility's large annual capital spend — which can then become even more complicated with the introduction of new and exciting initiatives, such as electrification.

"The electrification of nationwide transportation infrastructure will create significant growth opportunities for electric utilities," says Adam Young, a project manager and utility consultant at Burns & McDonnell. "It will also require new technology, new metering, new rate structures, and all will require capital investment."


Though electrification represents one overarching initiative, it will likely impact every area of a utility's planning and analyses. This disruption is precisely why utilities need and use stringent capital investment strategies — ongoing — to prepare for known and unknown challenges, as well as how to finance them all.




RESOURCE AND EXPANSION PLANNING to understand and plan out power supply portfolios and generation assets.



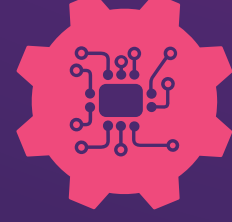
DISTRIBUTION PLANNING to help identify where upgrades are needed to support growth.



CAPITAL ASSET PLANNING AND PRIORITIZATION to assess and identify renewals and replacements to improve reliability.



BUSINESS CASE ANALYSES to determine investments in initiatives or projects that support future sales and revenue growth.



TECHNOLOGY PROJECTS to identify the necessary technology that will support new initiatives or ease stress on systems.