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Energy/Utilities

Breaking from the Pack with a Best Efficiency Business



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1. Efficiency Enthusiasm Meets Reality

Political and regulatory leaders have set unprecedented goals as to what can and should be accomplished in energy efficiency. Some targets mean aggregate electricity consumption will cease growing, while others anticipate consumption will be driven down to below today's levels.

For example, Barack Obama recently stated his energy efficiency goal in *Electric Perspectives*:

"I will also set a national goal of improving energy intensity by 50 percent by 2030. To achieve this goal, we will reduce electricity demand by 15 percent from DOE-projected levels by 2020."

To meet this goal, the nation must drive down aggregate 2020 consumption by approximately four percent below today's levels.

Experience thus far raises the concern that efficiency initiatives could have a more moderate, albeit significant, impact. Look at California, where investment in energy efficiency has greatly outpaced most other states. It is oft-cited that

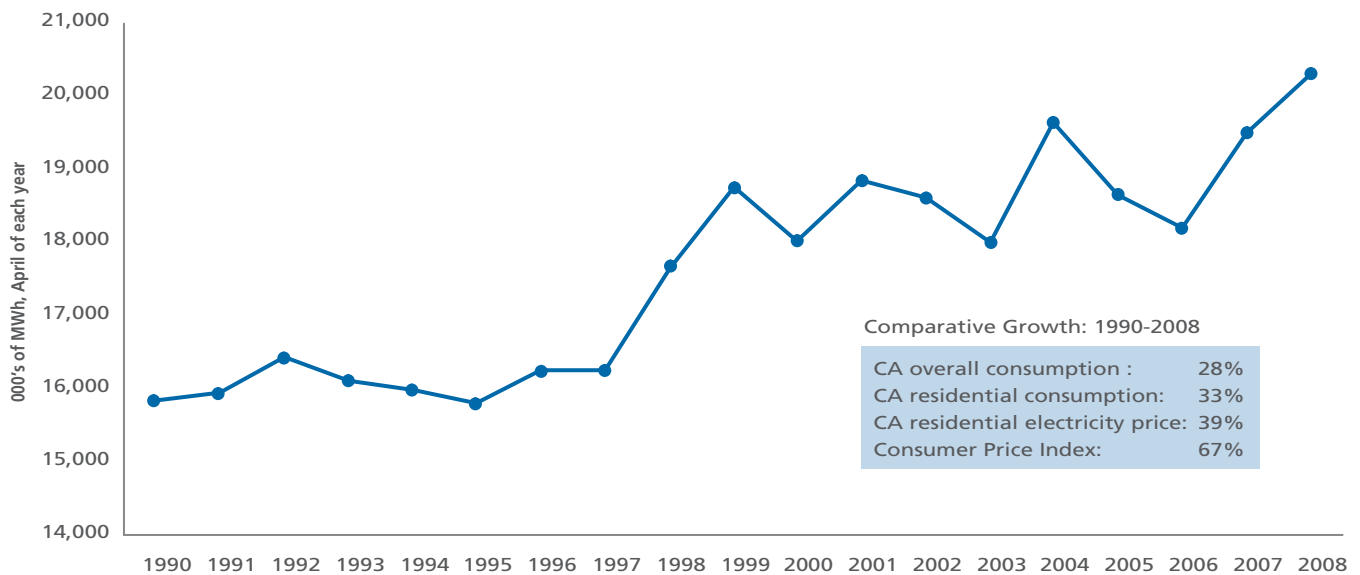
California has succeeded in stabilizing energy intensity, i.e., electricity consumption as a function of population.

However, California electricity consumption continues to increase as population increases. And, it's unclear that residential and commercial energy intensity has actually stabilized since the state's industrial electricity consumption has fallen considerably, dragging down with it overall consumption and intensity.

The exuberant expectations about energy efficiency bring forth significant risks for utilities. If and when ambitious goals for efficiency and resultant electricity consumption and carbon dioxide emission cuts are not reached, questions will be asked. Did utilities drag their feet in efficiency? Were they creative enough? Or are they just not competent when it comes to helping households and businesses become more efficient?

Each question has serious implications. Utilities may suffer in regulatory decisions. Their proposals to build infrastructure may face tougher obstacles.

Electricity consumption growth continues unabated, even for efficiency leader California



Source: Department of Energy/Energy Information Administration

In the extreme, government may simply cut utilities out and hand the efficiency mandate to third parties.

2. Tidal Wave of New Risks

It can be anticipated that political and regulatory leaders will increasingly demand transparency to monitor concrete progress of utility energy efficiency programs towards meeting targets; however ambitious are the targets. Minute public tracking, already underway in California on a monthly basis, is fast coming nationally. Tracked and reported will be third-party verified energy savings of course, but soon enough the public's bottom line — i.e., the effect countering electricity sales growth in kilowatt-hours and cutting carbon footprint in tons of carbon dioxide — will also be tracked.

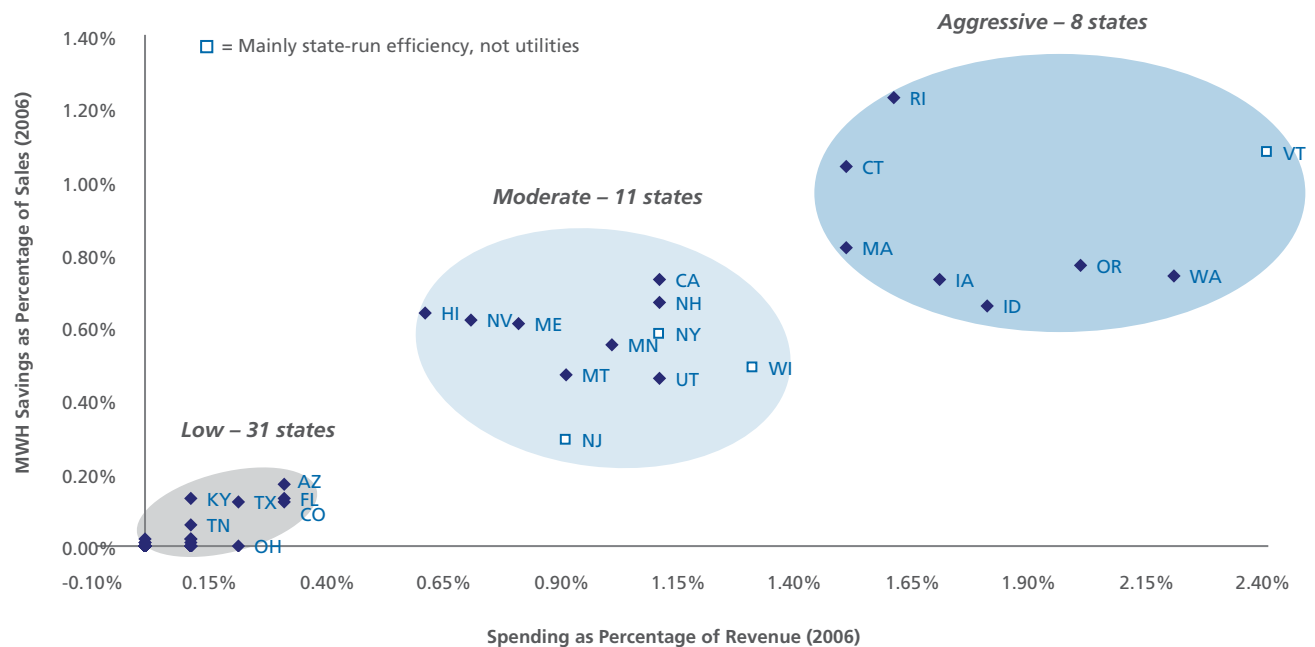
While it may be difficult for many utilities to meet energy savings targets, such as one percent of sales annually or greater, it will be an immense challenge for them to demonstrate significant effects on electricity sales growth and carbon footprint. Electricity sales growth is driven by

almost indomitable increases in energy intensity (penetration and usage of electric appliances per capita), among millions of customers, plus increases in population. Energy efficiency programs, no matter how comprehensive and aggressive, reach and impact but a fraction of all customers.

As for the ultimate bottom line, carbon footprint, this parameter tends to be remarkably consistent for most utilities unless they resort to the closure of major high-emission coal-fired generating units. Whether electricity sales growth is two percent per annum, one percent, zero, or even minus one percent, the consequences for carbon footprint will generally be fairly little, since low-emission gas-fired generation typically serves marginal sales.

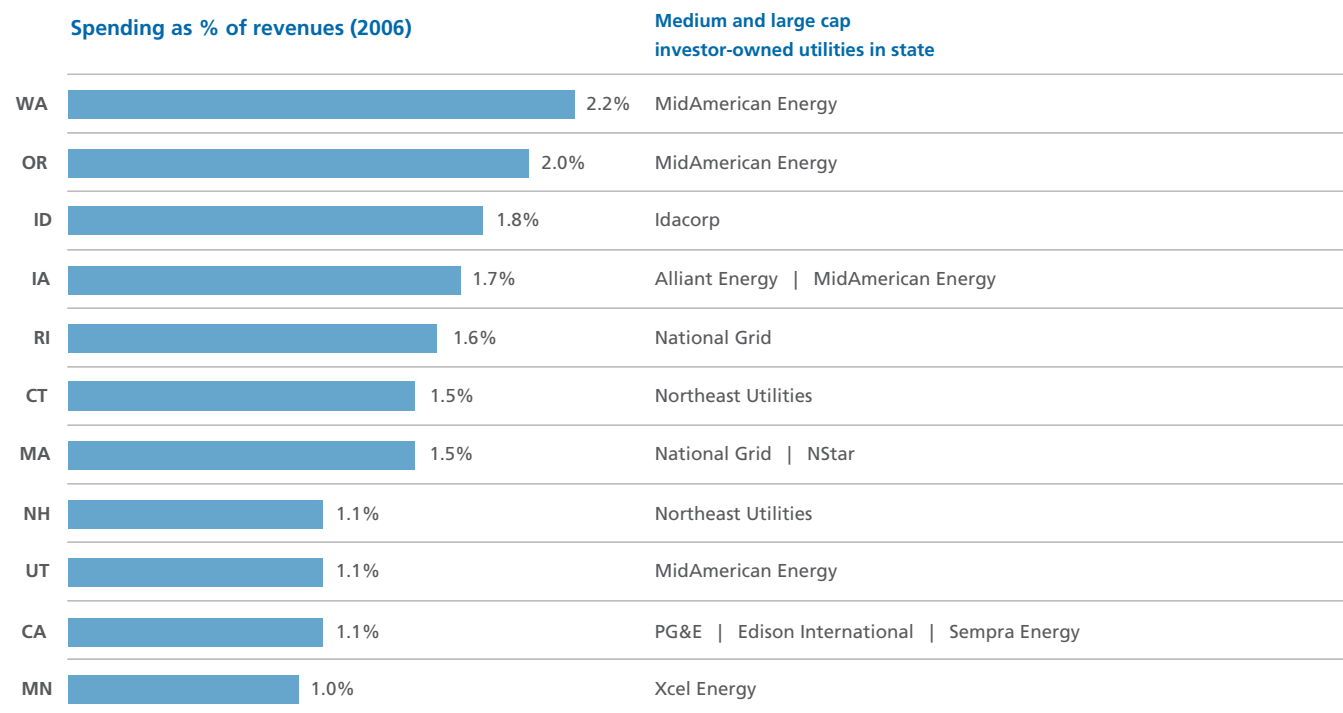
With tracking and reporting, it can also be safely predicted that criticism will rain down on many utilities. From the same quarters as always (e.g., commission staffs, attorneys general), as well as from emerging critics, utilities will be criticized for shortfalls whatever the cause, whatever the reasonability of efficiency targets and expectations.

Aggressive states in efficiency are few and concentrated generally in the West and Northeast



Source: American Council for an Energy Efficient Economy

Utilities in leading energy efficiency states



Source: American Council for an Energy Efficient Economy

Note: Excludes states that have had mainly state-run energy efficiency programs, i.e., New Jersey, New York, Vermont, and Wisconsin.

In particular, one can foresee growing roars and pressures to take away from utilities the energy efficiency responsibility, in favor of outside contractors, third-party administrators, merchant efficiency companies, consortiums, and government agencies. Already in New Jersey, New York, Vermont, and Wisconsin, government agencies have taken over efficiency (though New Jersey's Energy Master Plan of October 2008 now trumpets the inherent strengths of utilities in efficiency, and the New York Public Service Commission revived the key role of utilities in June and August 2008 orders). A gaggle of advocates are skirmishing across the country to emplace doubts as to whether utilities can and should be entrusted with the efficiency responsibility.

Inevitably, climate change cap-and-trade law and regulation will ratchet up the pressure to cut utilities' carbon footprint, whether emissions emanate directly from utility-owned generation or indirectly from generation purchased in day-ahead markets of independent system operators.

Notwithstanding energy efficiency's moderate impact on carbon footprint, as noted above, efficiency is one of the few climate change weapons many utilities will have available to deploy before 2025 or so in order to reduce their need for climate change emission allowances.

3. Answer for Some: A Best Efficiency Business (BEB)

It is thus vital for utilities to both perform in the efficiency arena as best as is possible and to demonstrate compellingly that their performance was best-in-class. For if their accomplishments fall short of the expectations of government, the case must be clear that the reasons are clearly ascribable to external social, economic, and technical factors beyond their control. In so doing, utilities will mitigate the coming risks of unmet efficiency expectations.

A select set of utilities will mitigate these risks, effectively breaking away from the pack, by transforming their typical panoply of efficiency

programs into a focused business. They will develop what we refer to as a Best Efficiency Business (BEB).

The utilities that take this large step, in addition to mitigating risks and thus preserving shareholder value, could conceivably create significant value. In particular, key constituencies, such as regulators and the financial markets, will accord more and enhanced options to build infrastructure and to acquire other companies. Demonstrated excellence in efficiency through a BEB may thereby be reflected in financial market multiples and valuations.

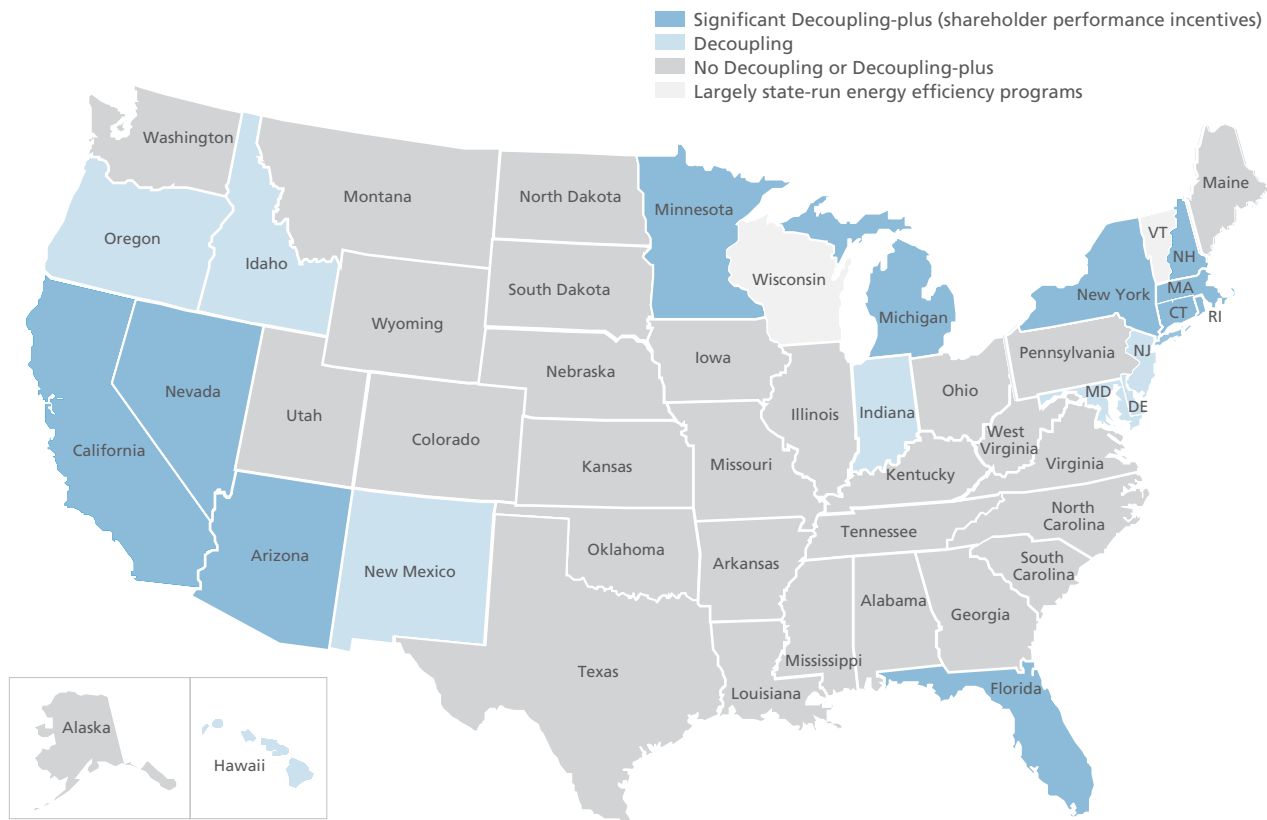
A BEB dramatically changes a company's efficiency function from a cost center to a profit center, and ultimately to a material contributor to earnings per share. This progression can come about as political and regulatory leaders increasingly articulate

that an income-plus policy (decoupling-plus), not just income-neutral (decoupling), is necessary to stimulate the extraordinary magnitude of efficiency improvements that they envision and so desire.

Just in the last year, several legislatures and regulators authorized for the first time what we call "rate-base equivalents." Increasingly, utilities will be able to produce shareholder earnings from their performance in improving the energy efficiency of customers. The earnings will be in amounts roughly equal to what would be earned if the efficiency improvements had not been performed and the extra electricity consumption would instead need to be met via investments in rate-base generation and transmission.

A model of what can be accomplished if a utility emerges and is recognized as best-in-class in a highly regarded field is there for all to observe. In

States with decoupling and decoupling-plus to encourage utility efficiency programs



Source: American Council for an Energy Efficient Economy; Environmental Protection Agency; Regulatory Assistance Project; Natural Resources Defense Council.
 Note: Status signifies that electric utility decoupling or decoupling-plus has been adopted in some form though implementation may be in process.

recent years, FPL Group transformed its merchant power plant unit into the nation's leading wind power company (yes, with nuclear and fossil-fired generation assets, too). Today FPL shareholders enjoy the benefits of a relatively strong financial valuation and unique credibility in political and regulatory discussions in Tallahassee, Washington D.C., as well as state capitals throughout the country.

One can envision the authority that would be conferred on the three to five leaders in the efficiency field, particularly as the debates heat up post-election on climate change and related energy and environmental policies nationally and at the state level. If a utility operates a leading BEB, it will possess a potent tool to wield in advocating its policy preferences for the benefit of its customers and shareholders.

4. What Distinguishes a BEB

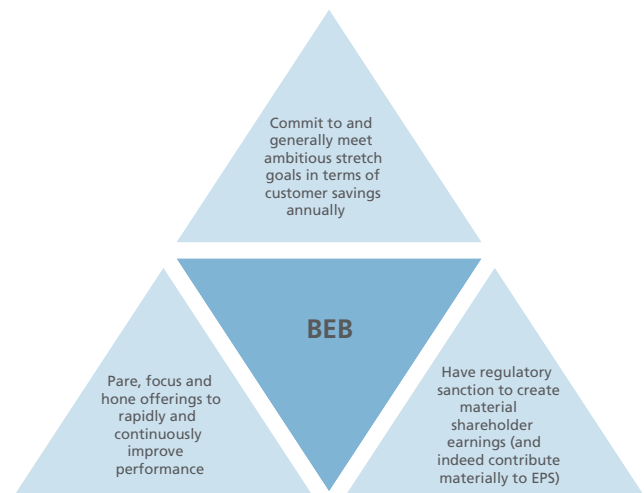
In these times, virtually every utility operates the usual lineup of energy efficiency programs. Typically, this is a remarkably broad array of offerings to audit and potentially help upgrade the kilowatt-hour efficiency of lighting, heating and air conditioning, refrigeration, cooking and other electric appliances, buildings, motors, industrial and agricultural processes, etc., for any and all residential, commercial, industrial, and government customers.

A few utilities field more aggressive programs, particularly the three investor-owned California utilities that operate in a remarkably pro-efficiency political and regulatory environment. By critically studying the experiences of Pacific Gas & Electric, Southern California Edison, and San Diego Gas & Electric, one can better envision the future of efficiency nationally. All three utilities have committed to ambitious stretch goals for how much they will effect in customer kilowatt savings annually, have regulatory sanction to create material shareholder earnings in the process, and are increasingly honing their offerings to rapidly ramp up performance.

The distinct characteristics of a BEB are all there to be seen, to the great credit of the California utilities, albeit in a somewhat intermediate stage even there. A BEB will:

- I. Commit to and generally meet ambitious stretch goals in terms of customer savings annually,
- II. Have regulatory sanction to create material shareholder earnings (and indeed contribute materially to earnings per share), and
- III. Pare, focus, and hone offerings to rapidly and continuously improve performance.

Three key characteristics of a Best Efficiency Business



Clearly these are great leaps from the status quo. Many utilities track cumulative kilowatt-hour savings from some distant point in the past as estimated and validated by third-party auditors. In contrast, a BEB will track monthly, quarterly, and annual savings and try to analyze and reconcile to actual trends in electricity sales growth.

Many utilities only have regulatory sanction to true-up earnings to hold shareholders harmless relative to the effects on electricity sales of efficiency programs, i.e., the notion of decoupling.

Clearly, this notion fails to take into account the opportunity cost of capital and other inputs (e.g., management focus, talent allocation) and so severely discourages utilities from going all out in efficiency. California regulators have blazed the path of decoupling-plus by enabling utilities to earn what we call rate base equivalents from efficiency, basing such earnings on how shareholders would fare if utilities build power plants and transmission facilities instead of bring about the same energy amounts of customer efficiency. States are following suit (e.g., Florida's 2008 legislation, statutes section 366.82; New York Public Service Commission "order concerning financial incentives," case 07-M-0548, August 22, 2008).

Many utilities have a try-everything culture in their efficiency programs. Some programs have 40 or more separate offerings to residential, commercial, industrial, and government customers. Such unmanageable breadth would be a terrible challenge for even the most capable mass-retail companies.

The BEB of the future need not hold to the famous General Electric rule of solely pursuing lines of business in which first or second place among competitors can be maintained (nor would this be allowed by regulators). Nonetheless, excellence in efficiency will undoubtedly demand far more focusing of resources and customer presence than we observe as today's norm.

5. Considering and Launching a BEB That Fits

A handful of utilities will seek to dramatically transform their typical energy efficiency programs into this vision of a BEB. Their common strategic choice would be: our company shall drive for, attain, and be recognized for regional and national leadership in this strategically vital field. Their common premise would be, if we successfully distinguish ourselves so, our company, customers and shareholders will be positioned to reap considerable benefits.

How might an individual utility consider and possibly develop and launch a BEB? We believe the first phase – necessarily – is to rigorously consider the basic threshold question of whether a given company has a realistic potential to successfully develop a BEB.

This question should be candidly and objectively addressed before committing a company to the extensive effort and great leap to a BEB. A few select companies do have a realistic potential to succeed, given their external political, regulatory, and customer environment and internal financial and talent capacities. For these companies, developing a BEB may be a valuable strategic choice.

Many utilities would instead face hostile implacable external environments and/or would be severely hampered by internal constraints. These companies might aim to limit their ambitions in the efficiency arena to incremental improvements over time based upon BEB best practices.

The basic threshold question that should be confronted, in a first phase, can be broken down into three essential parts:

- What benefits, specifically, would regional and national leadership of a successful BEB confer on our utility, customers, and shareholders? Would these financial, economic, and environmental benefits, if realized, be significant in magnitude for our company?
- What is our potential, realistically, to develop, execute, and achieve a recognizable level of leadership considering our company's particular external political, regulatory, and customer environment and our unique capacities and limitations? How might the greatest external and internal challenges be overcome?
- How would the required commitment to dramatically transform to a BEB impact other operations and strategic initiatives of the

company? Would new enterprise risks emerge? Would existing risks magnify or be mitigated and diminish?

product cycle management and mix, point of sales customer interface and operations, applications of technology, alliances, etc.?

Suppose that the basic threshold question of the first phase has been answered in the affirmative, that a company does indeed have a realistic potential to successfully develop a BEB. The conditional second phase is therefore to go ahead and craft a BEB business model structured to fit and leverage a utility's particular strengths and service territory characteristics.

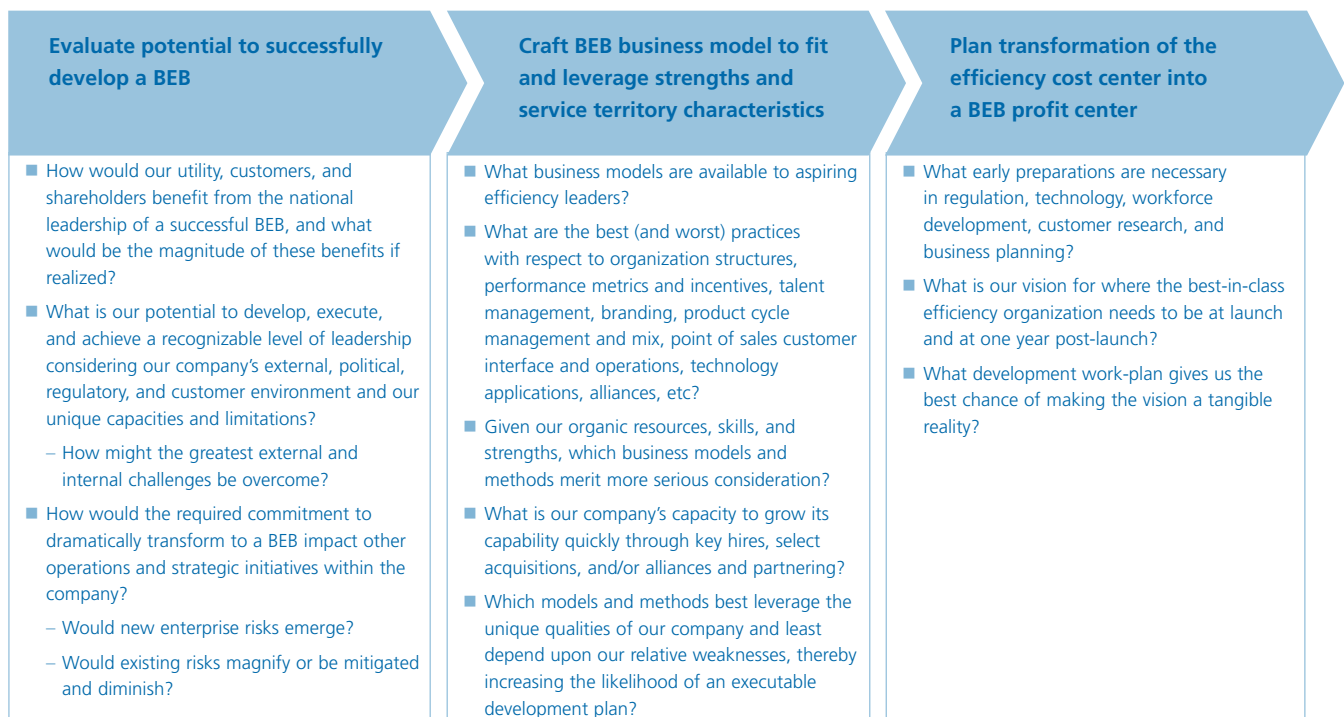
Thinking about the appropriate business model entails these three broad concerns:

- What is the range of general business models available to utilities with leadership aspirations in efficiency? Drawing from the foundation of best practices, what is working well around the country thus far, and what is not, in efficiency organizational structures, performance metrics and incentives, talent management, branding,

- Given our organic resources, skills, and strengths, which general business models and specific methods merit more serious consideration? And what is the company's capacity to grow its capability within an aggressive timeframe through key hires, select acquisitions, and/or alliances and partnering?
- Which models and methods best take advantage of the unique qualities of our company and least depend upon our relative weaknesses? Addressing this question candidly and objectively increases the likelihood an executable development plan will emerge from this process.

Just as the second phase in BEB development is conditioned on a positive outcome of phase one, the third phase is dependent upon phase two

Developing a Best Efficiency Business



producing an executable business model that appropriately fits a utility's special circumstances and environment. In this third phase, a utility's plan is thoughtfully and comprehensively put together to implement the business model and make the leap to it from the status quo.

When planning the transformation to a BEB, one can look to the experiences and most effective approaches in post-merger integration i.e., it requires the most careful consideration of these questions:

- What early preparations are necessary in regulation, technology, workforce/skills development, customer research, and business planning? And what are the critical path activities our company must get started at the earliest point in time?
- What is our vision for where the BEB organization needs to be at launch and at one year post-launch?
- What specific development work-plans give our company the best chance of making the vision a tangible reality? And how will these work-plans be supported by sufficient financial, human, and technology resources?

6. First Steps

Over the last 18 months, almost all utilities have revived their energy efficiency organizations and programs. These are quite sensible reactions to the rapidly-escalating political and regulatory pressures (as well as to the genuine opportunities to benefit customers through selective efficiency programs).

A far more challenging time is fast-approaching when political and regulatory leaders will expect to see extraordinary results from utilities. It can be anticipated that certain third parties will be super-charged to criticize utilities if and when the extraordinary results are not manifest, without regard to the external social, economic, and technical factors beyond the control of utilities.

The sunny optimists will hope this coming storm will pass them by. The less-optimistic will consider whether they should aspire to become best-in-class in efficiency, to mitigate risks, and just possibly to grow shareholder value. As a first no-regrets step, these pragmatists will carefully pose and answer questions – such as those offered above – about their aspirations to lead in the efficiency field and their potential to fulfill such plans. ❖

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