KirE Builders, Inc. specializes in eco-friendly communities spread across San Diego County. KirE applies a wealth of knowledge to every home it constructs, ensuring that its customers receive energy efficient homes with environmentally savvy designs at the highest possible standards.

Don't Tear It Down!

Sustainability is a big word with many different connotations, depending upon its context. But when it comes to the built environment, the meaning is simple: it’s made to last. In a connected world where our attention span has shortened significantly, those in the building industry are

So You’ve Decided to Go Solar. Now What?

Solar is a significant investment designed specifically to benefit your wallet and create a better lifestyle for your family. Let’s face it — high

Corporate Social Responsibility Reporting: A Business Imperative

The past 100 years have drawn our attention to the effect we have on our environment—and how it, in turn, affects us. Both individuals and businesses are tasked with doing our part to mitigate our impact. Simply put, it’s the right thing to do—so it’s no wonder corporate social responsibility (CSR) reporting has become common practice in the past decade.

Most large, global businesses have been issuing CSR reports for years, and midsize businesses aren’t far behind. For all but the smallest companies, investing in CSR reporting pays back—not only in the cost savings associated with better resource management but also with respect to your long-term business strategy.

The Business Case for CSR

Most of us in San Diego are already on the same page concerning sustainability, this issue of the San Diego Business Journal

Let the Sun Heat Your Commercial Pool and Save

Rebates and Lower Utility Bills Attract a Wide Range of Pool Owners

Warm spring days mean the return of swim season in San Diego as people flock to pools at apartment buildings, homeowner associations, schools, swim clubs, hotels and elsewhere. However, commercial pool owners and operators know that even when daytime temperatures go up, nighttime temperatures remain low, forcing them to continue costly
For Pardee Homes, Earth Day is every day, and has been for more than 18 years. The company’s commitment began modestly when it became the nation’s first major homebuilder to apply the Environmental Protection Agency’s ENERGY STAR® standards to every home it was then building, which in turn translated into measurable cost savings for the homebuyer. As these homes came to market in 1998, the company was already moving to do more, working with green-build experts, architects and product suppliers to grow its green program.

By 2001, Pardee Homes launched its LivingSmart® program, a total-home approach to sustainable building. The first LivingSmart® homes opened in San Diego’s Pacific Highlands Ranch as part of a master plan that included restored habitat, protected vernal pools and significant preservation of open space and wildlife corridors. These homes featured standards and options geared to advance energy efficiency and better interior air quality along with conservation of resources while still delivering upscale design appeal.

The LivingSmart® program is a comprehensive approach to responsible development, and is comprised of four core components—HealthSmart™, EnergySmart™, EarthSmart™ and WaterSmart™—that include standard features and options that increase energy efficiency, save water, save money and contribute to the homeowner’s long-term peace of mind.

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Since building its first ENERGY STAR®-rated home and introducing its LivingSmart® program, Pardee Homes has focused on bringing award-winning sustainable homes and environmentally conscious communities to the Southwest, including San Diego.

Today, all new Pardee Homes residences are built to LivingSmart® standards. "Pardee Homes is proud to be part of the global story of environmental awareness symbolized by Earth Day," said Jimmy Ayala, division president for Pardee Homes in San Diego. "As a pioneer in green building, we continually strive to offer cutting-edge features and options." Pardee Homes’ enlightened approach to land planning includes the creation of ‘natural’ slopes planted to minimize water use as well as support the native eco-system. When building homes, the company minimizes waste by ordering pre-cut wood and other materials while recycling most construction waste. Many Pardee Homes’ communities include dedicated open space, habitat restoration and revegetation programs and walking trails.

Pardee Homes has earned repeated recognition for its green and sustainable programs and advocacy, with dozens of top honors in such programs as the Green Building Awards, EVHA, Gold Nugget Awards and more.

By 2001, Pardee Homes launched its LivingSmart® program, a total-home approach to sustainable building.
The Reach for Zero Net Energy

By Paul A. Correa

Created in 1978 by legislative mandate, the California Building Energy Efficiency Standards (also known as Title 24) is the governing document on how buildings throughout the State are constructed and what level of energy efficiency they must achieve. With buildings being a major consumer of energy, the goal of the Standards, especially the 2013 and soon to be implemented 2016 Standards, is continue the push to reduce the amount of energy used by both residential and non-residential buildings. The other goal of the Standards is to slowly introduce stricter regulations so that newly constructed residential homes be Zero Net Energy by 2020 and commercial buildings by 2030. The Standards cover lighting, appliances, insulation, mechanical system design and installation to achieve energy efficiency and preserve environmental quality.

With the 2013 Standards as the first real step towards Zero Net Energy, the level of ease or difficulty to meet the requirements of each code update differs on who you speak to in the building industry. The 2013 Standards require residential buildings to improve their energy efficiency design by 25 percent over the prior 2008 Standards and commercial buildings by 30 percent, mandating requirements such as:

• Solar zones on roof tops to encourage the use of renewable energy
• Commissioning requirements for commercial buildings over 10,000 square feet
• Increased lighting controls to reduce energy consumption
• Lighting controls acceptance test requirements by a third party technician (LCATTS), and
• Numerous documents that must be filled out by the project team to confirm design compliance

The 2016 Standards

Lighting

Under the 2016 Standards, all lighting in new residential construction must be high-efficacy throughout, lighting control requirements for indoor residential spaces must be controlled by a vacancy sensor or dimmer except for hallways and small closets, and, recessed fixtures cannot be “screw in”. All outdoor lighting must now be high efficacy and this is applicable to low-rise, multi-family residential buildings, outdoor lighting for patios, balconies, entrances, and porches. Builders must now provide new homeowners with a lighting schedule on all installed lighting. This will help cities make sure a project was built as designed while giving assurance to the new homeowner.

High Performance Building Envelope and Mechanical Equipment for Newly Constructed Buildings

One of the keys to increasing energy efficiency of new buildings is done by using more efficient heating and cooling systems. With buildings being a major consumer of energy, the goal of the Standards, especially the 2013 and soon to be implemented 2016 Standards, is continue the push to reduce the amount of energy used by both residential and non-residential buildings.

You’ve got Baker Power.

There are many solar energy providers out there. But there’s only one offering the experience, care and expertise to power your home—and your future. Baker Electric Solar.

Call us at (760) 546-6091 or visit BakerElectricSolar.com to schedule your free consultation.
Hotels:

This emerging consciousness is no longer considered radical nor the prov-enance of disruptive young citizens. Today, we call it Sustainability. "Going green" has changed the way we live and consume; it has affected every facet of our lives.

SDG&E, as part of its sustainable communities program, features a case study on its website about the Hotel Indigo Gaslamp Quarter.

In particular, sustainability has significantly changed the hotel business.

Some 34 million people visited San Diego County in 2015, according to the San Diego Tourism Authority, and about half of those required lodging. Increasingly eco-conscious travelers are making accommodation decisions on whether the hotel has environmentally friendly practices in place. To aid the search, there are websites devoted to ranking hotels according to these practices and associations dedicated to providing products and ideas to help hotels meet those demands.

Gaslamp Quarter LEED Hotel

One of the sustainable standouts is the Hotel Indigo San Diego Gaslamp Quarter. Benita Stevens, director of sales and marketing for the hotel, said when they get a request for proposal from companies that are considering the hotel for a meeting it includes several questions about the hotel’s sustainability practices.

“I can’t tell you how much weight they put on it,” Stevens said. “But it’s in every business proposal we get.”

Stevens said it’s also part of the process when working with the San Diego Convention Center. “American Chemical Society was just here and it was the first time we had to fill out quite an extensive survey for that particular convention and even for San Diego to be considered as the city,” Stevens said. Stevens said the Convention Center required that all selected hotels gather together to talk about its expectations and why sustain-

ability was especially important during the upcoming week while the association was in town.

SDG&E, as part of its sustainable communities program, features a case study on its website about the Hotel Indigo Gaslamp Quarter. The case study refers to it as San Diego’s first LEED certified hotel. A few of the many examples listed for what qualified the hotel for this designation are that hazardous soil was removed from the site, eliminating a previous brownfield. 100 percent of the hotel’s parking is located underground, reducing the heat island effect; bike racks and showers are provided to encourage use of alternative transportation; a “green roof” with native plant species helps minimize storm water runoff as well as the heat island effect and the hotel entered into a two-year contract to purchase renewable energy for 35 percent of the building’s energy needs. Hotel Indigo is part of IHG, a global company with nine hotel brands, formerly known as the Intercontinental Hotel Group.

“So many people think that when they see a swarm of bees they should call an exterminator,” Kipps-Bolton said.

“I like to think I speak for the bees.”

Downtown Hotel Incorporates Bees

A stellar example of older properties taking steps to positively impact the environment is the Marriott Marquis San Diego Marina. The hotel was built in 1984 in downtown San Diego and found a creative way to turn an existing heat-island rooftop into a “green roof.” It’s raising bees.

Ian Hulahan, director of sales and marketing for the Marriott Marquis said they have two bee hives that provide honey that is used in its various restaurants.

“We have it (the honey) on the breakfast buffet and we partnered with Monkey Paw Brewery Co. and brewed honey beer,” Hulahan said. “Chef Aron Schwartz in the Marina Kitchen uses the honey in his recipes.”

Hulahan said urban beekeeping was implemented at the Marriott Marquis in an effort to reduce the property’s carbon footprint and promote the conservation of local nature. The two hives are managed by professional beekeeper, Geoff Kipps-Bolton, and Marriott employees. Kipps-Bolton agrees it is a step in the right direction because bees are “in trouble.” He also hopes that the Marriott hives will encourage other urban beekeepers.

“So many people think that when they see a swarm of bees they should call an exterminator,” Kipps-Bolton said. “I like to think I speak for the bees.”

He said people “freak out when they see a big mass of bees because they think they are going to be attacked because of the African bee fiasco.” According to Kipps-Bolton it was a bad year this year and last year for the bees, which are in danger of “colony collapse disorder” or CCD, and that the Marriott’s effort is commendable.

In addition to appealing to eco-conscious consumers, hotels are finding that creating a greener environment can be good for the bottom line and Mother Earth.

“I think there is a huge potential there with what the Marriott is doing,” Kipps-Bolton said. “People love that sort of thing; bees are very hip at the moment.”

Preservation as Sustainability

Sustainability can also include preserving worthwhile buildings and landscapes that are important to a region’s history and environment. This is not often the most cost-effective way to go, but important. Such is the case with the...
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is proof. But it helps to have a business case.

As with other forms of reporting, CSR reporting adds transparency by identifying and mitigating potential risks to the long-term sustainability of a business. Inefficient use of scarce resources doesn’t make social or fiscal sense, and it only drives up the cost of performing the same operations over the long term. In the short term, careful resource management results in immediate cost savings as well. Double-sided printing, energy-efficient lighting, and the repurposing of waste materials all add up. On the personnel side, investing in employee health and wellness programs or other retention efforts may temporarily increase costs, but in the long term it reduces health costs and increases productivity.

Further, sustainability is an increasingly important public relations issue. A negative public perception can make working with you a risk for vendors, and a negative perception can make long-term sustainability procurement. Tackling CSR reporting with a technology manufacturing company, for example, your first CSR report. A chemical manufacturer, for example, you’ll choose to track very different KPIs than a professional services firm.

Getting Started

Most companies are already making choices they can and should track in a CSR report. If you don’t yet have a CSR report, consider simple changes you can make. If you don’t recycle, start. If you do recycle, start measuring how much, and compare it to how much waste you generate. As leases and contracts with vendors expire, make sustainability a part of the selection and request-for-proposal process.

Four best practices as you begin:

1. **Decide on a framework.** Information overload is common when companies organize their first CSR report. A defined framework will help you gather, analyze, and audit the information that’s most meaningful. The Global Reporting Initiative and the Sustainability Accounting Standards Board offer two common frameworks.

2. **Define your goals and measurement systems.** Goals demonstrate the credibility and quality of your report, clearly articulate your baseline, set benchmarks, and long-term goals, outline how you’ll track progress, and implement a monitoring system.

3. **Demonstrate a connection.** Explain how your mission statement, growth plan, and overall business strategy tie into the key performance indicators (KPIs) laid out in your report. For example, you’d choose to track very different KPIs than a professional services firm or a technology manufacturing company.

4. **Be consistent.** Consistency between your sustainability report and other public reports, such as SEC filings or press releases, is crucial. A lack of transparency will decrease your report’s validity and undermine trust in your findings. Trade associations or other nongovernment organizations can help you develop a starting point for your report by requiring compliance with particular standards.

Upping the Ante

If you’ve already implemented a CSR reporting process, you’re on the right track—but don’t get too comfortable. In addition to continuing to improve your KPIs, look forward. If you’ve focused on environmental impact in previous reports, consider branching out into new areas, such as your economic impact on the community and how you compensate and treat your employees.

Some companies are already required to report nonfinancial information, providing data on their supply chain for conflict minerals or their internal controls surrounding customers’ personal information. There’s a push toward integrating CSR reporting with required financial and nonfinancial reporting, which would give investors and other stakeholders a more holistic view of a company’s risk areas. If you have a CSR report, consider making it a part of your larger reporting package.

In addition, consider implementing third-party verification of your report. Independent assurance and monitoring add credibility and quality to your report and can help keep you accountable for continuous improvement.

How Sustainability Changed Our Business

As a professional services firm, our most profound impacts concern the physical space we occupy, the office resources we consume, and the way we treat our people and clients.

Nationally, one way we’re becoming more sustainable is by replacing expiring leases with leases in LEED-certified buildings. As of 2015, 40 percent of our leased space was in LEED-certified buildings, and that percentage will con-
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But enough about you.

Maybe your home should be as well-equipped, high-achieving, design-forward and multi-talented as you are. We get it. See what’s possible at PardeeHomes.com/SanDiego.

PARKVIEW
Models Now Open
Ocean View Hills
Anticipated from the $400s

CANTERRA
Pacific Highlands Ranch
From the low $300s

ALTA DEL MAR
Del Mar Mesa
Final Homes
From the $2 millions

OLIVE HILL
Bonsall
From the low $700s

VERANA
Pacific Highlands Ranch
Final Homes
From the high $900s

ARTESANA
Coming Sept.
Pacific Highlands Ranch
Anticipated from the $1.8 millions

CASABELLA
Pacific Highlands Ranch
From the low $900s

But enough about you.

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constantly looking to the next innovative design and new materials. Today, tomorrow’s technologies promise exciting new possibilities. Though, as time passes, we discover that while sometimes these promises are fulfilled, other times it’s not the case. With the glittering hope of a brighter future we sometimes lose sight of the past, the things that are tried and true, the successes and failures. The key to sustainability or “built to last” now lies somewhere in between, with a clear recognition and respect for the past.

A recent trend shows the best promise towards sustainable futures is adaptive reuse. When creatively conceived, what we sometimes consider elements of the built environment that no longer have value, can be repurposed in ways that give them heightened value. To successfully achieve this, creative minds need to dig deep into architectural history, re-capture the elements of style that can apply, utilize new technologies and expand or renovate to meet the new needs of our communities. In many instances, older properties suffer from a familiarity complex. The neighborhood becomes overly familiar with the property in a way that no longer looks interesting. With a new, creative look at an older property in this reuse effort, the result can increase interest for the project. The point being, structures that are built to last when repurposed are excellent examples of true sustainability.

Submitted by McCullough Landscape Architecture.

McCallough, RLA, ASLA principal of McCullough Landscape Architecture, has recently been appointed by Mayor Kevin Faulconer to the City of San Diego’s Historic Resources Board. Visit mlad.com to see the firm’s extensive portfolio of sustainable commercial projects.

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continue to grow. At the same time, we’re carefully managing our square footage despite hiring on more people, reducing the impact of our growth on the resources we consume.

When our San Diego office lease expired last year, we chose to relocate to La Jolla Commons, California’s greenest multitenant building. The immediate result: a 50 percent reduction in carbon dioxide emissions, a 30 percent reduction in energy use, and an 87 percent reduction in fresh water use. As part of the move, we modernized our office space to an open one that better supports collaboration while reducing our footprint—ultimately minimizing the energy and resources our office consumes.

“Our new office environment makes major changes, and our people the flexibility to choose their work environment and their hours. Because we also encourage alternative transportation, our people telecommute when practical, sparing the resources associated with transportation while reducing our physical footprint. Because we also encourage alternative work schedules, these changes allowed us to improve quality of life by giving our people the flexibility to choose their work environment and their hours. Join Us

Whether you’re improving on an existing CSR report or just getting started, there’s momentum behind you—especially among the San Diego business community. Visit www.mossadams.com/sustainability to learn how we can help you track progress against your RPIs and issue a meaningful report.

Submitted by Moss Adams.

Gerardo Godinez provides assurance and consulting services to manufacturing and technology clients. He can be reached at 858.627.1442 or gerardo.godinez@mossadams.com.

Eric Rohner provides tax and consulting services to private and public companies. Eric also leads the firm’s national Clean Technology Practice. He can be reached at 858.627.1461 or eric.rohner@mossadams.com.

The Crack Shack, a re-purposed building in Little Italy, is a recent project of McCullough Landscape Architecture that exemplifies the firm’s commitment to building re-use and sustainability.
The second, third, and fourth reasons we’re proud to call La Jolla Commons home.

50% less carbon dioxide emissions
50% less energy used
87% less fresh water consumed

See our full corporate social responsibility report and learn how we can help you manage your impact at www.mossadams.com/sustainability.

Moss-Adams LLP
Certified Public Accountants | Business Consultants
Britt Scripps Inn, a bed and breakfast hotel at 4th and Maple near Balboa Park. The magnificent Queen Ann Victorian was built in the late 1880s and was home to San Diego newspaper publisher E.W. Scripps for nearly 40 years. The home has survived through much change in its 130 years: various private residences, an inn during the late 1970’s, law and medical offices and now a bed and breakfast.

The property was meticulously restored between 2002 and 2005 by environmentalist Gordon Hattersley III. Hattersley’s renovation and restoration of the historic Britt Scripps mansion received an Award for Excellence in Historic Preservation and the “Gift to the Street Award” from the San Diego’s Save Our Heritage Organization. It also has a valuable Mills Act property tax abatement designation. The Inn is favorably ranked on the website, www.environmentallyfriendlyhotels.com, which evaluates hotels on a 30-point criterion for its green policies and procedures. The hotel received high marks in several categories including environmental cleaning, education of the staff on green practices, participating in green programs, energy conservation, organic food served in the dining room, use of durable service items and water conservation.

The property is on just more than one-third of an acre. The landscape, rather than razed and replaced, is true to the original Kate Sessions design. Sessions, known as the “Mother of Balboa Park,” was a botanist, horticulturalist, and landscape architect who introduced many California native plants to the local horticulture trade and into many gardens all over San Diego. A breath-taking ancient tree shades the garden between the home and carriage house as homage to Sessions.

These properties are just three among many in San Diego that are embracing sustainability as a business practice. In addition to appealing to eco-conscious consumers, hotels are finding that creating a greener environment can be good for the bottom line and Mother Earth.

Related websites:
www.greenhotels.com
www.environmentallyfriendlyhotels.com
(24 San Diego area hotels are on the above website ranked by 30 criteria, including the three in the story)
www.youtube.com/user/beesonthenet/videos
CPG Consultants is a Leader In Providing Strategic Green Building and Land Development Services

With offices in Southern and Northern California, CPG is a full-service sustainability and land development services firm specializing in assisting construction projects satisfy green building project goals, building code and permitting requirements from design through construction. For existing buildings, we use our expertise in energy efficiency to provide strategic advisory services on how to lower operating costs through cost effective retrofit upgrades and energy audits — all with the goal to create a higher performing building that will be more valuable to the owner and its tenants.

Our Services
GREENPOINT RATED CERTIFICATION
LEED CERTIFICATION
TITLE 24 COMPLIANCE & MODELING
BUILDING COMMISSIONING
CALGREEN & BUILDING CODE COMPLIANCE
ENERGY AUDITING
WATER REDUCTION STRATEGIES
HERS TESTING & VERIFICATION
• Duct Leakage, Refrigerant Charge & Inspection Services
SUSTAINABLE BUILDING ADVISING
• Project Specification Review
LAND PLANNING AND PERMITTING SERVICES
• Strategic Land Development & Civil Engineering Services
We Service the Following Project Types
• New Construction (Residential, Commercial and Retail)
• Renovation / Additions to Existing Residential (Single & Multifamily)
• Retrofit to Existing Commercial Buildings
• New Retail / Restaurants seeking CalGreen Compliance
• Projects seeking Green Code & Title 24 Compliance
• Master Plan Development Projects
• Projects seeking Land Use Planning & Permit Assistance
We are Certified
• HERS Raters
• GreenPoint Raters
• LEED APs
• CalGreen Inspectors
• Energy Analysts
• Engineers
• Multi-Family Energy Raters
• Energy Auditors
• Urban planners
We Are Skilled At Representing
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• Owner-Builders
• REITS
• Affordable Housing Developers
• Home Owners
• Property Management Companies
• Building Operators
• Public Agencies
• Nonprofit Organizations
• Design Firms

ABOUT US
Serving the San Diego regional area including Los Angeles and Northern California, CPG Consultants provides strategic green building, energy efficiency, and project development services. As former building inspectors, city planners, plan reviewers, energy analysts, policy staff with local cities, and home builders, we are proud to be a consulting firm that is uniquely positioned to assist our clients in meeting their project goals. We understand the complexity of local building and planning code requirements and are knowledgeable about cutting edge strategies to lower energy cost and reduce water use. With this background, we provide unmatched services for our clients to accomplish their project goals effectively and successfully — and of course, on time and on budget.

OUR GOAL
Our goal is simple — provide cost effective and strategic services that will move a project from design to development and final occupancy quickly, while meeting all project goals. We work with and represent our clients to strategically keep their project on the “fast track” review and approval process. We accomplish this through our in-depth knowledge of any and all local and state building, energy, and green building requirements. Overall, we strive to advise our clients on how to quickly and effectively meet all project goals while enhancing the value of their project.
equipment, like tankless water heaters and high-tech thermostat controls such as the Nest along with walls, floors and attics that use more energy efficient insulation. The new 2016 Standards will require that if windows or doors are left open for more than five minutes in a commercial building, the heating and cooling controls will automatically disable the HVAC equipment to save energy costs.

Given that the 2016 Standards will go into effect on January 1, 2017, coupled with the State’s ZNE goals for newly constructed buildings, here are a few recommendations on how to ensure project compliance:

Documentation Management:
Name a Responsible Party
Since the implementation of the 2013 Standards numerous pages of new compliance documentation must be completed and signed-off by members of the design and development team for new projects. Forms that need to be completed may include “Solar Ready Areas,” “Commissioning, Design, Review,” and “Lighting.” There may be one or two required forms for a new single family home to more than 20 forms consisting of hundreds of pages. Completion of these forms can be extremely burdensome to the project team – but, all must be completed and included in the final construction document submitted to the local building department for review and approval.

On numerous of our projects, CPG acts as the “compliance documentation manager” for the project team to ensure the required forms are completed accurately and on time, signed-off and included in the construction documents. Integrate an Energy Modeler Early in the Design Process
As used during LEED certification

Case Study
One small business in Mission Hills, for example, currently has an electric bill of about $1,225 per month; between energy savings and tax incentives, the new commercial financing will generate almost $100,000 in positive cash flow in just the first 5 years alone!

Solar has always been a good investment, allowing people to save money while saving the planet. Now, new commercial financing allows small-to-medium-sized businesses and institutions who own their properties to take part while also making sure the business maintains a healthy cash flow for growth.

For more information on new commercial solar financing for business, non-profits, churches or your home please contact us today!

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San Diego’s Best Solar

AFFORDABLE SOLAR FOR SMALL BUSINESS, NONPROFITS & CHURCHES IS HERE!
No-money-down solar loans now available through Stellar Solar new commercial financing

We know these organizations, like homeowners, would like to go solar to save money on their growing electric bills. Until recently, however, there was simply no financing available for smaller projects. All that has changed, thanks to the commercial financing being offered in most areas of San Diego County.
better within the specific timeframe. For many corporate or enterprise data center operators, this will mean adopting new energy-efficient cooling and power management systems or migrating to a facility that meets these new standards.

This move towards sustainability and energy efficiency is not a new trend, but with stricter regulations becoming the norm, large scale users of power, water, and other key data center resources will need to begin evaluating ways to comply and improve operational efficiency.

The move towards sustainability and energy efficiency is not a new trend, but with stricter regulations becoming the norm, large scale users of power, water, and other key data center resources will need to begin evaluating ways to comply and improve operational efficiency. The benefits of these efforts are real, both from a reduction in resource usage, to tangible cost savings which can result from the efficiency improvements. Still, many organizations may simply look to service providers who specialize in operating highly-efficient data center space in order to solve this new challenge.

At ScaleMatrix, their revolutionary green data centers were designed from the ground up with power efficiency in mind. The company was fortunate to have identified this need early on, and has been designing extremely efficient data centers throughout the U.S. since their opening in 2011. According to ScaleMatrix Co-Founder Chris Orlando, “Our proprietary Dynamic Density Control™ (DDC) is a revolutionary change to the traditional raised floor, hot/cold aisle type of data center design. Our DDC platform aligns cooling and power resources with actual client demand, alleviating waste, improving efficiency, increasing density, and delivering unmatched cost savings in the data centers.”

The Dynamic Density Control™ (DDC) platform was developed in 2011 by the team at ScaleMatrix.

Why is this important? Well, it’s simple. Orlando explains, “By dramatically increasing the efficiency of a data center, we are able to significantly reduce the cost of delivering our services. This means better prices for our colocation, cloud, and managed service clients. For companies operating their own data centers, they will either need to meet these new regulatory requirements, or look to partner with a firm like ours, who not only meets these guidelines, but who leads the industry in setting the standard.”

The Dynamic Density Control™ (DDC) platform was developed in 2011 by the team at ScaleMatrix, and over the past four years, ScaleMatrix has helped hundreds of local businesses reduce their IT hosting costs by leveraging their highly efficient data centers. This advancement in efficiency is especially important in markets like San Diego, where electrical utility costs are some of the highest in the nation. For those looking to reduce their demand and improve efficiency, companies like ScaleMatrix can help by providing hosting or colocation services for existing IT infrastructure, or by helping install highly efficient data center cabinet technology within enterprise or corporate facilities.

“We’re seeing between 25 and 30 percent improvement in overall energy efficiency over a traditionally built data center. For clients who choose to host their IT equipment in one of our facilities around the country, this equates to the most cost effective power pricing available. For those retrofitting their facilities with this groundbreaking tech, it can mean tens of thousands of dollars in electrical savings per year or more.”

In our local community, the concentration of life science, genomics, and high tech start-up organizations means a larger than normal focus on high-performance computing (HPC). These users in particular are faced with considerable electrical utility requirements, and can truly benefit from leveraging any available efficiency tools to reduce overall cost. In addition to cost and resource savings, ScaleMatrix’ proprietary DDC platform provides unparalleled density capabilities, meaning that you can put more IT equipment in a smaller footprint. By saving space and improving efficiency, ScaleMatrix can help ensure the best possible use of space, power, and financial investment for these high-performance users.

In our local community, the concentration of life science, genomics, and high tech start-up organizations means a larger than normal focus on high-performance computing (HPC). In addition to the cost savings, there are measurable improvements to the overall sustainability of this industry through the use of the DDC platform. It is estimated that that a traditional data center can have a carbon footprint of between 5M and 150M kilograms of CO2. With ScaleMatrix’ Dynamic Density Control™ Platform, this amount can be reduced by an estimated 50 percent, making the green color of these innovative cabinets more part of their aesthetics.
energy costs and almost continuous sun make the San Diego area perfect solar territory. But with more than 400 different solar providers in San Diego, who can you trust to do the job right? That’s why it’s imperative to research and compare companies before signing a contract to have a system installed on your roof. Take the time. You’ll thank yourself later.

San Diego’s solar market is highly competitive and many companies just don’t have the stability to last. If your solar provider doesn’t make the cut, what’s the service backup plan?

Here are some things to keep in mind:
First, how long has the company been in business? Anything less than five years and there’s the risk that the company’s installers just don’t have the track record of success and expertise your family deserves. Are you confident your solar provider will be around long enough to assure your warranties? San Diego’s solar market is highly competitive and many companies just don’t have the stability to last. If your solar provider doesn’t make the cut, what’s the service backup plan?

Does the company offer a workmanship warranty? This warranty is your coverage against workmanship and installation errors. Any company that offers less than 25 years is a red flag.

Some companies present themselves as a solar provider, but in actuality they do over-the-phone sales and subcontract to random solar installers to complete the work.
Look elsewhere. Product warranties are different and vary from manufacturer to manufacturer. However, most solar panels worth your money are warrantied for 20 to 25 years and inverters are covered for 10 to 25 years. Multiple companies may offer a similar warranty. Will they be around to honor it in 25 years?

Does the company do their own installations? Some companies present themselves as a solar provider, but in actuality they do over-the-phone sales and subcontract to random solar installers to complete the work. Beware. These are many times, “here today, gone tomorrow” companies who are in it for themselves. Not for you. Other types of companies that hire subcontractors also pose a problem. Quality of the workmanship, your potential liability, and the question of who’s going to service your system in the long term are all serious considerations. Look for a company that hires insured union electricians to perform your solar installation. This helps guarantee that your roof and solar panels are getting the best care in the industry.

Does the company have proof of a current C-46 and C-10 contractor’s licenses? This identifies electrical contractors who are professionally vetted by the State of California to expertly install solar systems. There are no substitutions. These are the guys you want working on your home. You can visit http://www.cslb.ca.gov to check the current status of a company’s license.

What do customers and the industry say about the company? Check out the BBB and Yelp to see what customers are saying about them. Also look to a company’s awards and recognition. How do they rank on Solar Power World’s list of Top California Solar Contractors? Look at Glassdoor.com to see what their employees say about working there.

And most importantly, trust your gut. If a company and its staff leave you feeling less than confident, chances are you’ll regret the decision to work with them.

KirE: KirE is one of the few builders to participate in the San Diego Gas & Electric California Advanced Homes Program (CAHP) which highlights best practices in energy efficiency, green building and sustainability. KirE’s single-family home community in Fallbrook, known as Circa De Loma, combines the latest in “green” technologies and innovations. Sited among citrus and avocado groves, each home comes solar ready for each of its customers through a “no money down,” third party lease option. Or new homeowners may purchase the solar system outright by SunPower, known as the world’s highest efficiency solar panels.

Each new home comes equipped with low emission windows and a radiant barrier roof (perfect for warmer climates). The radiant heat is rejected from the roof which is a concept similar to tinting your windows, offering a much cooler daily on hot days. This limits the amount of heat by refracting the heat from the sun.

“Our ten new Circa De Loma homes all come standard with landscaping rain sensors to stop your sprinkler systems from turning on during a rain occurrence outdoors to conserve water,” said Josh Santa, President, KirE Builders, Inc.

Most homes offer single-level living, offering ease of mobility for all ages, as well as, more efficient heating and cooling. Various room options are offered for indoor-outdoor flexibility, and multi-generational living accommodations with privacy walls.

For the homebuyer seeking superior sustainable design and energy efficient appliances, these semi-custom homes offer a unique opportunity to create a desirable and eco-friendly family homestead.

KirE: KirE Builders is considered one of South California’s premier home builders in sustainable living practices.

KirE: Circa De Loma, Fallbrook

Baker Electric Solar 9.16 kW system in Escondido

Does the company have proof of a current C-16 and C-10 contractor’s licenses? This identifies electrical contractors who are professionally vetted by the State of California to expertly install solar systems. There are no substitutions. These are the guys you want working on your home. You can visit http://www.cslb.ca.gov to check the current status of a company’s license.

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Solar pool heating well into the summer.

Both indoor and outdoor commercial pools typically require a swimming temperature between 80 and 86 degrees. To maintain that comfort level, a large pool requires year-round heating and consumes a considerable amount of natural gas—roughly as much as 150 homes, resulting in annual utility bills running up to tens of thousands of dollars.

To cut energy costs and gain green ratings, a growing number of commercial pool owners are turning to solar pool heating to capitalize on reduced natural gas use and substantial utility incentives, according to solar expert Sarah Smith of the Center for Sustainable Energy.

Solar heating systems integrate with a pool’s water filtering system and natural gas heater to become the main source of heating.

Solar heating systems integrate with a pool’s water filtering system and natural gas heater to become the main source of heating. Over the past 25 years, the solar pool heating industry has blossomed for backyard pools, but languished in the commercial sector due to high upfront costs that start at about $30,000 and go up to $250,000 or more.

The situation changed in 2013, when the California Solar Initiative—Thermal (CSI-Thermal) program began issuing rebates for commercial swimming pool heating as part of the California Public Utility Commission’s measures to help reduce fossil fuel use and curb greenhouse gas emissions.

The CSI-Thermal program currently funds up to 50 percent of system installation costs for pools at commercial, multi-family, government, non-profit or institutional locations.

Solar Heating Advantages

The CSI-Thermal program currently funds up to 50 percent of system installation costs for pools at commercial, multi-family, government, non-profit or institutional locations. The rebate is based on the estimated annual thermals of natural gas displaced by the solar system.

Single-family home pools are not eligible.

Smith manages the CSI-Thermal program for CSE in the San Diego region. She reports 80 rebates have been issued to date for pools in San Diego, with an average award of $12,500. Statewide, the program has incentivized more than 500 pools for rebates totaling $7,017,000.

The program has sparked interest among property management companies, multi-family developers and others in real estate, according to solar energy equipment supplier Roy Heine, CEO of Suntrak Industries. He said the program has changed the playing field for the solar industry, and the better value proposition increased Suntrak’s solar pool heating sales fourfold during the program’s first year.

“CSI-Thermal lit a flame of interest among commercial pool owners that was dormant prior to the rebates. The fact is, you cannot find a better solar investment than pool heating when it comes to return on investment.”

Roy Heine

“CSI-Thermal lit a flame of interest among commercial pool owners that was dormant prior to the rebates,” Heine said. “The fact is, you cannot find a better solar investment than pool heating when it comes to return on investment.

According to PK Data, a company that compiles swimming pool and spa industry statistics, there are roughly 40,000 commercial swimming pools in the state of California—most of which are currently heated using natural gas.

A solar pool heating system basically eliminates natural gas pool heating bills eight months a year, and during winter, offsets 50 percent or more of costs.

Carlsbad Swim Center

Swim center entrepreneur Jon Alpert, founder and owner of Waterworks Aquatics, has installed solar pool heating at four of his eight corporate locations, including an indoor, two-pool center off Palomar Road in Carlsbad.

Solar heating was included during the facility’s construction in 2011 to serve as a teaching pool set up for children at 90 degrees, and another pool installed three years later for a lap pool maintained at 89 degrees. The second system qualified for the CSI-Thermal program, receiving a $13,118 rebate on a $26,300 installation. Alpert said the project also qualified for a special renewable energy loan program offered by the Small Business Administration.

“The low cost of natural gas, it’s hard to want to put in solar pool heating at first, but the immediate and consistent utility bill savings combined with the rebates and other factors, it makes for a good return on investment,” Alpert said.

Apartment Complex Pools

Developer Russell Khouri of Invest Concepts, a real estate company that owns apartments and various properties in Southern California, includes solar pool heating as a sustainable building feature that offers both energy conservation and a long-term environmental asset.

Solar pool heating, along with solar water heating for domestic uses and solar photovoltaics for on-site electrical generation, counts toward renewable energy credits in Leadership in Energy and Environmental Design (LEED) certification and qualify for increasingly popular, low-interest property assessed clean energy (PACE) financing programs.

Investment Concepts has installed systems at 17 of its residential properties, including recent additions of three separate solar systems for three pools at the 172-unit Villa Monair Apartments in Bay Park in San Diego. The pools qualified under earlier terms offered by the CSI-Thermal program, resulting in a total rebate of $27,500 toward installation costs of $37,280.

“I would advise any multitenant property owner with a pool to think seriously about solar and to take advantage of the free energy offered by the sun and the opportunity to reduce gas consumption whenever possible,” Khouri said.

Pools at Schools

Mohr Power Solar approached the El Cajon Valley School District about installing solar pool heating for its Olympic-sized, 50-meter competition and recreational pool at Montgomery Middle School. After considering the potential utility savings and learning of the rebates, the district went ahead with the project, merit a $20,300 rebate on a $40,610 system.

With rebates as high as 50 percent of the cost of a system, it makes solar pool heating both financially beneficial and an ecologically smart choice,” said Bill Hannon, a system design engineer at Mohr Power Solar.

Information on Rebates

Commercial, municipal and multi-family swimming pool operators can get more information about installing solar pool heating and the available CSI-Thermal rebates by contacting CSE at 858-244-1177 or visiting energycenter.org/hotwater.

Submitted by the Center for Sustainable Energy.

Chuck Colgan is a writer at the Center for Sustainable Energy.
The new 2016 Standards will require that if windows or doors are left open for more than five minutes in a commercial building, the heating and cooling controls will automatically disable the HVAC equipment to save energy costs.

To meet energy efficiency requirements early on while preventing major redesigns towards the end of the design process. With the new 2016 Standards continuing the push for buildings that use less energy, integrating the energy modeling team early can help the design team to evaluate various design strategies to meet the more restrictive mandatory energy efficiency requirements including any other sustainability goals such as obtaining LEED or GreenPoint Rated certification.

**Integrate a Lighting Controls Acceptance Test Technician (LCATT) During the Design Phase**

Although acceptance testing has been around since 2005, the 2013 Standards require a certified lighting controls acceptance test technician (LCATT) test and inspect all newly installed lighting systems and controls in a commercial building to make sure they are installed correctly and work as required under the state regulations. If correctly installed, these lighting systems will meet the energy efficiency goals set out by the state and ultimately lower operating costs for building owners and operators of these buildings.

CPG has found it very useful for project teams to initiate a discussion with a LCATT early on to review the acceptance test requirements, expectations, and design requirements in order to prevent failed acceptance test(s) and costs overruns to make corrections.

This integrated process will ease the burden of meeting the current and upcoming new 2016 Energy Standards and create a greater awareness of all energy efficiency requirements and paths to compliance.

Submitted by CPG Consultants.
Paul A. Correa, LEED AP, is the founding principal of CPG Consultants LLC.
There are many other changes in the 2016 Standards and paths to compliance. The CPG team is willing to present and discuss them with you and your team.

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Old Globe:
(from page A33)
(SDGBC) I had the pleasure of helping in its efforts with one of the six, the Old Globe Theater.
At the Old Globe, as a member of the SDGBC’s Energy & Atmosphere and Sustainable Site teams, we were tasked with documenting existing building systems and operations, identifying opportunities to reduce energy use and environmental impacts, and preparing conformance documentation for the United States Green Building Council’s review and green building LEED certification.

Tailor your sustainability goals to suit the clients’ needs.

For those of you pursuing LEED certification for an existing building, here are some strategies, based on my experience at the Old Globe:
• Tailor your sustainability goals to suit the clients’ needs. Emphasize site-specific benefits such as improved operation efficiency, user happiness, work productivity, and reduced maintenance costs.
• Some considerations may justify variances from LEED requirements. The Old Globe presented special lighting requirements as well as color, ambiance, mood, performance, aesthetics, and maintenance issues. Our team listened to the clients’ needs. Emphasize site-specific benefits such as improved operation efficiency, user happiness, work productivity, and reduced maintenance costs.
• Select furniture carefully. If you’re limited to purchasing one furniture item during the LEED performance period, make sure it is FSC- or Greenguard-certified, that way you’ll qualify for the sustainable purchasing credit.
• More data for more savings. During the LEED performance period, determine the actual volume of disposal/recyclable discard of the building. If the actual volume is less than the volume estimated in the property’s waste management service collection agreement, the owner may be able to use that fact to negotiate a reduced fee from the collector.

Devise a practical policy plan that not only gains LEED certification, but also improves operations at the facility.

Lighting considerations may justify some variances from LEED requirements. Carefully to operations staff and did not let LEED requirements trump the unique needs of the facility. Devise a practical policy plan that not only gains LEED certification, but also improves operations at the facility.
• Select furniture carefully. If you’re limited to purchasing one furniture item during the LEED performance period, make sure it is FSC- or Greenguard-certified, that way you’ll qualify for the sustainable purchasing credit.

Finding the Right Balance Between Benefits of Green Building and Simplicity Can Be Overwhelming

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