Serving the Power & Utilities Industry
What you face, how we help

Deloitte Center for Energy Solutions
<table>
<thead>
<tr>
<th>Contents</th>
<th>Page</th>
</tr>
</thead>
<tbody>
<tr>
<td>Deloitte knows the Power &amp; Utilities industry</td>
<td>1</td>
</tr>
<tr>
<td>Opportunities and challenges for power and utilities companies</td>
<td>2</td>
</tr>
<tr>
<td>companies in today’s environment</td>
<td></td>
</tr>
<tr>
<td>Industry trends affecting power and utilities companies</td>
<td>3</td>
</tr>
<tr>
<td>Client base and market share</td>
<td>11</td>
</tr>
<tr>
<td>Deloitte is a thought leader in the Power &amp; Utilities sector</td>
<td>13</td>
</tr>
<tr>
<td>Deloitte delivers renowned industry conferences and actively participates in industry events</td>
<td>14</td>
</tr>
<tr>
<td>Services offered through the Deloitte U.S. firms</td>
<td>15</td>
</tr>
<tr>
<td>Deloitte’s Power &amp; Utilities industry leadership and specialists</td>
<td>17</td>
</tr>
</tbody>
</table>
Deloitte knows the Power & Utilities industry. We anticipate your business opportunities and challenges.

October 13, 2014: SNL
In a recent report, “Evaluating M&A through a changing utility lens: A fresh look at M&A’s role in power and utilities,” Deloitte states that although M&A has not historically been a top option for regulated utilities because of concerns about regulatory obstacles and lengthy approval timelines, the current market makes M&A one of the most effective strategies for delivering near-term value and managing risk. Brian Boufarah, Partner, Deloitte & Touche LLP and one of the report’s authors, said in a recent interview that three key drivers for M&A exist in the current environment: synergies, balance sheet needs and new technologies.

March 31, 2014: Forbes
Almost half of the engineers employed by power and utility companies will become retirement eligible this year, according to analysts from Deloitte Consulting, and venerable old electric companies are finding it increasingly difficult to attract new talent. “This is really an unprecedented time,” said Garth Andrus, a partner in Deloitte Consulting’s human capital practice, during a webinar for utility executives last week. “We’re finding all these individual kinds of turbulence and when you put them all together they really can create kind of a supercell storm of challenges.”

April 17, 2014: Energy Intelligence New Energy
After a rotten time in 2011-12, when equity prices tumbled and initial public offerings were put on hold, renewable energy stocks have been staging a comeback. Yieldcos and securitization are two financing structures that emerged in the last year which could potentially drive up stock values, said Marlene Motyka, head of alternative energy at consultancy Deloitte.

April 9, 2014: SNL Power Daily with Market Report
“The New Math: Solving the equation for disruption to the U.S. electric power industry” is the third and last in a series of reports from the Deloitte Center for Energy Solutions about the changing landscape for the electric industry. Greg Aliff, vice chairman and senior partner, Energy & Resources, Deloitte LLP, and author of the reports, said those in the industry know that change and disruption in the U.S. electric power sector is underway. “There’s a general recognition that it’s less about whether it will happen and more of a question of what should we be doing,” he said.

February 20, 2014: Voice of Russia, American Edition
For the first time in about 30 years, the Department of Energy is planning to invest billions in the construction of greenfield nuclear energy facilities. In the wake of the 2011 Fukushima crisis and the 1979 Three Mile Island incident, criticism of nuclear power has echoed across the globe. Environmentalists warn that it’s an unsafe power source. Branko Terzic, executive director of the Deloitte Center for Energy Solutions sees it differently. He praises American nuclear plants. “We’ve had about 20% of the electricity in the United States produced by our 102 nuclear power plants. They have been operated well, many of them cost effectively,” says Terzic.

January 17, 2014: SNL Financial
In his 2014 Outlook on Power and Utilities, John McCue, vice chairman, U.S. Energy & Resources Leader at Deloitte, said three areas of technology will continue to drive the evolution of the industry: advancements in shale oil and gas production, advanced analytics enabled by in-memory database technology, and advanced nano-engineered materials. “I think they will more and more insert themselves in the power utilities value chain in the coming years,” McCue said in an interview.

Opportunities and challenges for power and utilities companies in today's environment

The dynamics of global energy demand, supply, and infrastructure dependencies have undergone more change in recent years than at any time since the 1970s.

Demand in the developed world has moderated as energy efficiency, conservation, and more “resourceful” commercial, industrial, and residential consumers predominate. Simultaneously, as the population and economies of the developing world expand dramatically, their appetite for energy grows accordingly.

Fortunately, the supply side dynamics are also undergoing dramatic change, as deep water offshore discoveries, shale gas/liquids, oil sands, and a portfolio of renewable energy sources evolve to meet the changes in demand. Solving the equations to balance these changes in demand and supply for the power and utility industry requires appropriate infrastructure: pipe and transmission lines, power generation, distribution systems, smart technologies, energy efficiency technologies, transportation infrastructure, liquid natural gas (LNG) import/export terminals, pollution abatement investments, etc. — all in the right place, at the right time, at the right price. Working to either advance and/or constrain these adjustments is the timing, nature, and cost of an evolving governmental regulatory and policy framework.

Power and utility companies have been making large capital investments throughout the history of this industry, yet the level of uncertainty present in today’s decision-making environment is unprecedented. The current landscape raises the importance of microeconomic and macroeconomic forecasting; business analytics, modeling and simulation; risk management; and, decision making under uncertainty.

Within the changing global energy environment, the power and utilities sector has an opportunity to work through this disruption and truly innovate. Many believe profound change is inevitable and, in some respects, may well be self-fulfilling. However, many aspects of this subject continue to be debated:

• How fast will today’s business model change?
• What will the new model(s) look like?
• Who will be the industry participants?
• What roles will technology, customers, and regulators play?

The challenge in developing new and flexible business models will be to balance the industry’s inherent “catalysts of change” against the industry’s institutional “barriers to change.” As boards and managements deliberate over these barriers, it will be important to shift the lens of the evaluation away from “Why we cannot afford to change” — “Why we cannot afford NOT to change.”

1 The New Math: Solving the equation for disruption to the U.S. electric power industry. Deloitte, 2014
2 Beyond the math: Preparing for disruption and innovation in the U.S. electric power industry. Deloitte, 2013
Industry trends affecting power and utilities companies

Changing face of electric regulation
Utilities continue to deal with regulatory uncertainty. The Dodd-Frank Wall Street Reform and Consumer Protection Act (Dodd-Frank Act) requires companies to report energy swaps to the U.S. Commodity Futures Trading Commission (CFTC), subjecting utilities to new record keeping, reporting and clearing requirements.

Most energy companies have never dealt with the CFTC before. Similarly, the CFTC does not have much prior experience with how utilities operate and are organized, posing an additional challenge to companies as they try to comply with the new rules and CFTC inquiries. This challenge can be overcome by establishing clear processes with roles and responsibilities, including a general sense of which matters can be handled internally, and which ones are serious enough to require outside expertise and counsel.

The Federal Energy Regulatory Commission (FERC) has become more attentive to cross-market hedging trades, as has the CFTC. Both regulators are concerned that energy companies involved with both physical and financial trading could possibly manipulate prices in either markets. Despite the availability of much guidance on these issues, many in the industry still view it as broad and unclear, leaving considerable room for interpretation.

Improved transaction monitoring can help energy companies avoid headaches — without requiring a huge investment of time and resources. Relatively simple screens for monitoring and surveillance can identify risky transactions that might create problems with regulators.

Finally, the North American Electric Reliability Corporation (NERC) has increased enforcement of the electric grid — specifically addressing maintenance of the reliability of the physical electric grid and cybersecurity, or critical infrastructure protection (CIP), which has been through significant revisions. NERC’s new risk-based approach, Reliability Assurance Initiative (RAI), can help focus companies and regulators on the most vulnerable areas of the bulk electric system. However, for many utilities RAI affects specific elements within their compliance environment, including internal controls, process documentation and communications and training.

Companies with operations that go across NERC’s eight regional entities can be challenged due to variations in how enforcement staff interpret and apply rules from one region to another. For those, RAI can serve as a common reference point to help in developing programs with a similar risk-based approach.

An environment of regulatory certainty, where the risks and rewards of strategic alternatives and related investments can be analyzed, will need to exist in order for the U.S. electric sector to smoothly transition to new ways of doing business. The concept of regulatory certainty comes with the expectation of objective regulatory monitoring and evaluation of future outcomes, with realignment as required.

Client case studies
Customer information migration to achieve regulatory compliance
Deloitte had been engaged by the electric utility to implement the SAP Customer Relationship & Billing platform, replacing their Customer Information System. We were subsequently engaged to convert a series of legacy databases maintained on the same mainframe to a new storage medium that allowed for analysis of long-term business needs, such as rate-cases and that would be accessible to a variety of end users.

Deloitte built a custom data warehousing solution that retained and provided access to legacy data for regulatory purposes post the SAP implementation.

---

4 The New Math: Solving the equation for disruption to the U.S. electric power industry, Deloitte, 2014
M&A: A focus on core competency
M&A continues to be a compelling strategic option for the power and utilities industry. Domestic and foreign investors are being driven by the challenge of finding growth, reducing costs, and improving the balance sheet in a time when opportunities for growth in native service territories are limited, yet large investments for reliability, technology, transmission, and generation loom on the horizon. Also, some deals are driven by power and utility companies reconfiguring their business portfolios to change their mix of regulated and unregulated revenues; rebalance their fuel and commodity market risk; and, add capabilities and/or scale to key pieces of their business. As companies rebalance, carve-outs and piecemeal acquisitions are more common, with a focus on core assets.

Another main driver is the desire to maintain a balanced generation portfolio — both by utilities and state utility commissions. If tax policies and financing structures remain status quo, utilities are anticipated to be the main acquirers of renewable capacity. With EPA regulations causing companies to choose to retire older coal-fired plants, a “megawatts void” may be avoided with emissions-free renewables. Although natural gas may currently appear to be the fuel of choice for coal replacement, over the long run prices will likely rise due to increased demand and higher production costs.5

Additional M&A trends that are evolving include a shift in the desired ultimate outcome from state regulators and desire to increase revenue. The ‘cause no harm’ edict has been replaced with a ‘net benefit to the public’ edict where future M&A deals are likely to be judged on the benefits brought to the consumer as well to help states meet their new goals of increased renewable energy usage and reduction of GHG emissions. In fragmented electricity markets, reaching a certain scale may allow merged entities to provide more service offerings and spread new technologies that create cost savings on to a larger base of consumers.

Client case studies

Acquisition planning and merger integration for large, integrated electric utility
Deloitte assisted one of the nation’s largest utilities to acquire and integrate multiple regulated and unregulated businesses into their ongoing operations. Deloitte worked with this client since 1985, during which time the company grew by almost 1,000%.

The scope of this work included:
• Assessing ‘As-Is’ states of business processes and systems of the merging entities
• Developing business process and integration requirements considering the diverse needs of the constituent businesses, optimizing shared and distributed functions
• Analyzing options developing business cases to determine the nature, timing, and scope of any business and systems integration
• Developing interim and longer term integration and systems migration plans
• Developing, planning, and delivering training to migrate all employees from existing to new business processes and systems
• Assisting with implementation, as appropriate, to achieve business synergies, including full-suite SAP, and shared services implementations

Post-merger integration support for a power generation company
Working closely with both sides of the transaction — the international acquirer and the domestic (U.S.) target — Deloitte provided project management office (PMO) assistance and advisory services on specific areas of the client organization — information technology (IT), human resources (HR), tax, finance and treasury, control, administration, purchasing and insurance, legal, communications, and operations/networks.

Large California-based Electric Utility
Deloitte MarketPoint LLC has maintained a working relationship with the commercial side of the utility for more than five years. Their commercial trading and marketing team employs MarketBuilder to value and price structured transactions in both the near and long-term time horizons. The broad nature of the relationship has given Deloitte MarketPoint the opportunity to develop outside the box scenarios that the utility can then test against actual performance.

5 U.S. Renewable M&A Powers On,
Deloitte Center for Energy Solutions, 2013
Diversification is key

Natural gas has led the story on power generation supply for the past several years and although important, fuel diversity is still the objective for utilities. Fuel diversity helps to protect electric companies and their customers from contingencies such as fuel unavailability, fuel price fluctuations, and changes in regulatory practices that can drive up the cost of a particular fuel.6

Fuel diversity also helps to ensure stability and reliability in electricity supply and strengthens national security.

In terms of new utility-scale generating capacity, natural gas-fired power plants accounted for just over 50% added in 2013, with coal providing 11% and wind nearly 8%.7 Overall, these sources generated 30%, 37% and 3% of all electricity in the U.S. in 2012, respectively. Nuclear power was used to generate about 19% of all U.S. electricity in 2012.8

Continuing the trend of the past few years of strong growth, solar added nearly 22%, a jump from less than 6% in 2012, with nearly 75% of the capacity added located in California.9

And according to the Solar Energy Industries Association (SEIA), 4,751 MW of new photovoltaic (PV) capacity was installed in 2013, representing a 41 percent increase in deployment over installation levels in 2012, with the utility market led the charge again with 2,847 MW of PV and 410 MW of Concentrating Solar Power (CSP) installed in 2013.10

The generation mix shifts on many different factors, including federal and state regulatory initiatives, demand, economics and social and political factors. Utilities must keep their options open in order to provide the safe, reliable, affordable and environmentally responsible electricity expected from consumers.

Client case studies

Market analysis for new power plants in western U.S.

A major U.S. power company asked Altos (now Deloitte MarketPoint LLC) to provide third-party market analysis to support ongoing decisions about building additional plants. The analysis helped the company to successfully finance three projects in the western U.S., all ultra-modern gas combined cycle projects. The company used MarketPoint to analyze its markets to understand Electric Reliability Council of Texas (ERCOT) and Western System Coordinating Council (WSCC).

Fundamental market analysis for power plant development in southeastern U.S.

A large U.S. utility company wanted to understand the fundamental economics of developing power plants at sites in a southeastern state, both contiguous to the interstate gas pipeline system running through the state and, more importantly to the company, not contiguous to the interstate system but downstream from its distribution system. The utility wanted Altos (now Deloitte MarketPoint LLC) to identify and quantify electrically advantaged nodes throughout the state, recognizing that those that are contiguous to interstate gas systems were probably already taken. MarketPoint built a detailed nodal model of the state’s electric generation, transmission, and consumption system to guide the utility’s electric plant development decisions.

Valuation for a North American nuclear development company

A North American nuclear development company asked Deloitte MarketPoint LLC to provide a fundamental market analysis in the Electric Reliability Council of Texas (ERCOT) region to help them better understand potential market opportunities given alternative future regulatory, cost, and fuel demand regimes. The analysis helped the client to understand the potential impact of these alternatives to provide a valuation of nuclear assets in the region.

“Deloitte has been increasingly developing cross-service line or integrated services such as governance and risk management, finance transformation, IT strategy and transformation, analytics, sustainability and climate change, and M&A, which allows the firm to address complex problems transcending service lines.”

Source: Kennedy Consulting Research & Advisory; Europe Consulting Marketplace 2011-2014; © Kennedy Information, LLC
Technology and innovation drives performance in ‘smart’ utilities: Data analytics to the rescue

The unprecedented explosion of data available from smart meter and smart grid programs, combined with increasingly complex data retention requirements from regulators, and a changing competitive landscape, create a perfect storm in utilities for information management (IM). Like companies in other industries, transmission and distribution companies face challenges and opportunities in the Internet age. Advanced analytics — in the form of in-memory database technology combined with smart data — is boosting efficiency, saving money, ensuring reliability and providing better service to customers.

As utilities collect vast amounts of useful data, they have an opportunity to uncover new customer usage patterns, to better forecast demand, to manage energy constraints more effectively, to improve compliance with regulatory requests, to prevent fraud and reduce loss, and to enhance customer service. The ability to measure and analyze data about electricity distribution and consumption in near real-time can unearth previously unavailable information on customers’ consumption patterns, preferences, and decisions. Leading companies will use advanced analytics and social media scraping to determine which messages and social media tools to use for each segment of their customer base. With this information, utilities can better segment their customers on the basis of their decisions to conserve or consume electricity.

Client case studies

Smart grid strategy to future-proof investment

When the director of smart programs for an electric company realized that the business lacked the number and depth of resources required to develop an Advanced Metering Infrastructure (AMI) strategy, they turned to experienced smart grid practitioners from Deloitte.

Deloitte strategy and vendor evaluations helped the business mitigate the crippling expense of trial and error, while enabling the company to better future-proof its overall $400 million smart grid design. With a solid strategy and solutions roadmap, the company is on track to deliver improved operational performance, increase customer satisfaction, and ensure a favorable regulatory rate of return.

Making customer data useful

A large U.S. utility engaged Deloitte to drive many aspects of their smart grid program, with data analytics being a key area of focus from the start.

Deloitte leveraged deep implementation experience and involvement in industry standards groups to aid in developing data and reporting requirements, data modeling, and interface design between smart grid applications and back office systems. Additionally, Deloitte’s technology strategy and security teams performed assessments focused on securing the data, and selecting tools to correlate the data in real time to provide optimal and reliable feedback to the business.

Collecting the data is only the first step, making that data useful requires strategic planning, a deep understanding of the targeted benefits, and extensive experience.

“Deloitte is heavily investing in analytics and plans to embed analytics offerings throughout all service areas on a global basis. In order to take analytics to market, the firm has formed a Center of Excellence called the Deloitte Analytics Institute (DAI). The DAI enables employees to share and leverage thought leadership, methods, tools, and solutions around the globe.”

Source: Kennedy Consulting Research & Advisory; Information Management & Analytics 2010-2013; © BNA Subsidiaries, LLC
Disruption: We’re not in Kansas anymore, Toto

As the power and utilities industry heads into a period of transformation, power, gas and water companies are poised to benefit from a wave of technological advancements that can positively affect results across the energy value chain.\(^{15}\)

Natural gas has become a key baseload fuel for electric power companies due to its low prices and lower emissions profile. To keep availability high and prices low, shale production advancements have already boosted drilling efficiencies significantly. Further advancements, such as rock physics, new seismic software, and data analytics of lessons learned promise to continue flattening the cost curve.\(^{14}\)

A variety of disruptive technologies have emerged to compete with utility-provided services — PV, battery storage, fuel cells, geothermal energy systems, wind, micro turbines and electric vehicle enhanced storage. In addition, energy efficiency and demand-side management technologies (DSM) also promote reduced utility revenues while potentially causing the utility to incur implementation costs. This combination of technologies can be the catalyst for actions that include closer alignment with all regulatory bodies, capital expenditure evaluation tools and the evaluation of new business models and services that can be provided by electric utilities to recover lost margin while providing a valuable customer service.\(^{15}\)

As utilities strive to continue their pace of investment, while experiencing moderating demand and decreasing revenues, they can look forward to the advancement of nano-engineered materials that can create tremendous efficiencies across the energy value chain. Nanotechnology can improve electricity generation in wind turbine design as well as can reduce the size, while enhancing the efficiency of solar panels. In five to ten years, smaller, faster and cheaper nanosensors will help utilities detect operations issues in advance by monitoring current and voltage along the grid — thus detecting the condition of underground cables and evaluating transformers and other equipment. Nanotechnology can also be a game-changer in helping to mitigate renewables’ intermittency by efficiently increasing batteries’ storage capacity.\(^{16}\)

Client case studies

Social media — integral tool for increasing energy management and efficiency

A wholesale power marketer sought to develop future energy efficiency delivery models. Deloitte collaborated with the client to create non-incentive-based consumer adoption strategies aimed at decreasing power consumption, incorporating social media/marketing, and benchmarking concepts.

U.S. Federal Government Agency

Deloitte assisted the agency to develop an energy strategy and a portfolio optimization decision model that quantified each type of strategic value of their initiatives. Additionally, Deloitte assisted in prioritizing energy investments within a constrained budget environment. The valuation methodology used for quantifying and integrating both direct and indirect benefits was Multi-Attribute Decision Analysis (MADA).

The process of developing a MADA prioritization framework involved extensive workshops and interviews with a broad set of stakeholders in order to develop a robust prioritization approach, and maximize engagement from diverse stakeholders ranging from project managers in the field, regional supervisors, national executive leaders, and representatives from external organizations.

In addition, Deloitte assisted the client by:

- Analyzing their energy reduction and renewable energy targets to determine the feasibility of achieving the targets within the proposed time frames.
- Gathering and integrating facility-level and energy consumption data for the first time at both the enterprise and installation level.
- Conducting market research of energy efficient building technologies and renewable energy technologies.
- Developing an investment timeline to meet the agency’s goals and targets.

The quality of project proposals improved dramatically. The combination of a robust decision tool customized to the agency’s strategy, combined with a training and change management program, helped project managers and planners better understand how to design their projects to create better value for the organization.

91% of companies say they have invested funds in energy management programs over the past three years, with these funds representing about 12% of their total capital budgets regardless of company size

— 2014 Deloitte reSources Study


\(^{16}\) Ibid

\(^{15}\) Peter Kind, Energy Infrastructure Advocates for EEI “Disruptive Challenges: Financial Implications and Strategic Responses to a Changing Retail Electric Business”, January 2013

Renewable and clean energy – ‘Alternative’ may not apply soon

Despite unexpected obstacles, strong demand for renewable energy is propelling the industry forward, suggesting alternative energy has possibly entered mainstream thinking as a viable energy supply source. Several market and policy trends have created a strong demand-pull for renewable energy. And surprising some, relatively strong M&A has driven further growth, despite uncertain federal incentives and policy.

State policy has emerged as a powerful ally for renewable energy, due to the demand created to comply with Renewable Portfolio Standards (RPS) as well as their desire for a diversified power portfolio. In addition to tax credits and grants, property tax incentives, and feed-in-tariff policies, some states are employing Renewable Energy Credit (REC) — essentially establishing a trading system allowing businesses and other large energy consumer to meet their environmental goals. “Green banks” are making clean energy investments more affordable by providing low-cost financing for renewable energy projects.

New financing mechanisms are being considered in order to attract new sources of capital, simplify deal structures and reduce the cost of financing renewable energy projects. Among them are Real Estate Investment Trusts (REIT) — which will require a Congressional action or Internal Revenue Service broad ruling clarifying renewable energy assets are real property for REIT purposes. One financing option gaining traction is the securitization of alternative energy projects, supported by The National Renewable Energy Laboratory — the solar developer and/or leasing company issues asset-backed securities, which are then serviced by the revenue streams from the completed installation. The “YieldCo” is another new method of raising capital in the renewable space due to several advantages that include how it can be used with pure-play renewables or mixed with conventional generation assets, thus providing greater flexibility in balancing tax liabilities with tax benefits.

Client case studies

Global expansion optimization — financial analysis and negotiations

With several customers currently constructing solar thermal power plants in the U.S., the client was planning to expand its manufacturing footprint to enter the North American market. The client engaged Deloitte to assist in developing a pro-forma financial model for its business plan, selecting a preferred location for its manufacturing operations, and negotiating real estate and government incentives.

The Deloitte team developed a detailed pro-forma analysis to model a multiphase, $100 million investment and compared three candidate locations based on a variety of factors — including labor, logistics, tax, incentives, and utilities. In addition, Deloitte developed the strategy and led negotiation for government incentives, land, infrastructure, and favorable tax treatment.

Business process and technology assessment and marketing strategy for a biodiesel producer

Deloitte conducted an analysis of the producer’s business processes and supporting technology systems and provided a detailed report of renewable energy markets, business process analysis, and the translation between business requirements and supporting technology capabilities. Deloitte also developed a marketing strategy for the client to compete in the growing marketplace, and provided them with industry and regulatory insights.

These advantages from the states and new possible financing models alleviate the pressure from the shale gas revolution. Although it could be expected that as Environmental Protection Agency (EPA) regulations force the shut-down of aging coal-fired plants, they will be replaced with natural-gas fired plants — the choice may not be so clear cut. Clean energy fulfills many needs — it ensures a diversified energy portfolio that mitigate the risk associated with any one technology, offsets potential for rise in natural gas prices and responds to consumer demands for green energy. Innovation has made this even more achievable through co-location and hybridization, whereby conventional fuels and renewables can be used together.17

17 “Alternative Energy Trends: Identifying opportunities, meeting challenges, delivering solution”, Deloitte Center for Energy Solutions, September 2013)
No industry affects economic livelihood, societal functioning, and quality of life like the energy industry.
Deloitte helps power and utilities clients address critical challenges and execute initiatives designed to further their strategic objectives, and deliver value for their shareholders.

Deloitte’s Power & Utilities practice*

- Serves all of the top 10 and 96% of the Fortune 1000 power and utilities companies
- Audits six of the top 10 Fortune 1000 power and utilities companies
- Provides accounting and enterprise risk services to 79% of the Fortune 1000 power & utilities companies
- Provides consulting services to 83% of power and utilities companies on the Fortune 1000
- Provides tax services to 85% of power and utilities on the Fortune 1000
- Provides financial advisory services to 68% of the Fortune 1000 power and utilities companies

*Fortune statistics are from the 2014 Fortune report, covering 2013 data.
Slam the door on cyber security breaches

www.deloitte.com/energysolutions

Deloitte Center for Energy Solutions
Deloitte is a thought leader in the Power & Utilities sector

Deloitte regularly publishes research and analysis that presents unique points of view and challenges our clients’ thinking.

Evaluating M&A through a changing utility lens: A fresh look at M&A’s role in power and utilities
Marketplace dynamics are transforming the power and utilities industry, reshaping business models and prompting companies to re-evaluate their strategies. As the lens through which power and utility companies view their strategic options shifts, merger and acquisition stands out as one of the more compelling and expedient strategies for delivering value and managing strategic risks to the business.

The New Math: Solving the equation for disruption to the U.S. electric power industry
Third in the series, the final paper examines the fundamental shifts already occurring in the electric industry’s “license to do business”.

Beyond the Math: Preparing for disruption and innovation in the U.S. electric power industry
Second in the Math paper series, this paper explores the five dimensions of change in the electric power industry so stakeholders can determine if, when, and how to pursue transforming their business models.

The Math Does Not Lie: Factoring the future of the U.S. electric power industry
The first paper in a series on helping companies explore the rapidly changing U.S. electric power landscape, provides a straightforward approach to examining the future of the industry through a simple framework using a mathematical equation.

Deloitte reSources 2014 Study
Deloitte, with strategy and market research firm Harrison Group, a YouGov Company, completed its fourth annual nationwide reSources Study, which provides insights that can help organizations make energy-related investment and business decisions. The 2014 Study illuminates the mindsets and behaviors of U.S. electricity customers from both the consumer and business perspective.

U.S. Renewable M&A Sees Warming Trend: Deal making heats up amid rapid growth in distributed solar generation and strong wind development pipeline
This report provides an overview of 2013 U.S. renewable M&A activity and drivers, policy and market developments, and an outlook for 2014 and beyond.

Alternative Energy Trends: Identifying opportunities, meeting challenges, delivering solutions
This latest report provides a view of the top ten alternative energy trends, as well as an overview of how Deloitte can help alternative energy companies meet the current challenges of this evolving industry.

Getting Smart Grid Customers Plugged In: Motivating change through mobile and social technology
This paper provides a framework to help utilities assess the maturity of their current customer engagement strategies on Smart Grid and outlines opportunities to integrate new technologies that can bring meaningful customer data to the engagement effort.

Technical Publications and Programs

Annual Power & Utilities Accounting, Financial Reporting and Tax Update
Summary of selected accounting and financial reporting developments specific to the energy industry, intended for a general audience of financial professionals, including chief financial officers, controllers, and accounting/tax professionals.

Regulated Utilities Manual
Assists the accountant familiar with accounting for businesses in general in applying that training to the specialized accounting practices of public utilities. Emphasis on the electric industry, but the principles are also applicable to the gas, water, wastewater, and telecommunications industries.

Power & Utilities Quarterly Accounting Update
Deloitte delivers renowned industry conferences and actively participates in industry events

Conferences and Seminars

**Deloitte Energy Conference**
Dedicated to providing clients and the energy industry with insights on emerging topics, Deloitte brings together energy executives, researchers, entrepreneurs, investors, and regulators from around the globe for an in-depth analysis of key developments and challenges facing today’s global and domestic energy markets at its annual Energy Conference.

**Deloitte Alternative Energy Seminar**
The Deloitte Alternative Energy seminar examines the future of alternative energy. Discussions at the seminar underscore the growing role alternative energy must play if America is to address climate change and energy security.

**Deloitte Oil & Gas Conference**
Committed to providing clients and the oil and gas industry with insights on timely topics, Deloitte offers this annual conference for oil and gas executives and leading industry experts to share their views on important issues facing the global oil and gas industry.

**Deloitte Energy Accounting, Financial Reporting, and Tax Update**
At this one-day seminar, Deloitte’s energy specialists focus on industry technical accounting and tax issues to assist participants in preparing for calendar year-end accounting, reporting, and tax requirements. Participants may choose either an Accounting and Financial Reporting Update or a Tax Update.

**Deloitte Energy Transacting Accounting**
At this one-day seminar, Deloitte’s energy specialists provide participants with an overview of complex accounting and valuation considerations associated with transactions in existing and evolving energy and commodity markets. The course provides an overview of current market dynamics, trends, and risk factors present in today’s energy markets.

**Utility Industry Book/Tax Differences**
This seminar compares and contrasts the federal income tax rules and the rules for financial and regulatory accounting purposes related to revenue and expense recognition, capitalization, and depreciation.

**Accounting for Income Taxes: Rate-Regulated Utilities**
This seminar reviews the specific issues in applying *Income Taxes, Topic 740*, to rate-regulated utilities. The course explains the issues and exceptions under *Regulated Operations, Topic 980*, including flowthrough accounting and changes in tax rates, and includes examples involving computations and journal entries related to flow-through accounting, excess deferred income taxes, and investment tax credits. The Internal Revenue Service’s normalization requirements are also summarized.

**Dbriefs — live webcasts**
Staying on top of the latest issues and strategies in the energy industry is a challenge, so we offer Dbriefs, live webcasts from our Energy & Resources practice, offering valuable insight into important developments affecting your business.

**How to join Dbriefs**
2. Click on “Join Dbriefs” in the right-hand column.
3. Enter your profile information.
4. Using the menus, select the webcast series you wish to view.
5. Submit your profile

**Associations**
Deloitte practitioners are members of and/or participants in the following associations:
- American Council on Renewable Energy
- American Gas Association
- American Wind Energy Association
- Edison Electric Institute
- Electric Power Supply Association
- National Association of Regulatory Utility Commissioners
- United States Energy Association
- Women’s Council on Energy and the Environment
- Women’s Energy Network
Services offered through the Deloitte U.S. firms

Deloitte offers clients a broad range of fully integrated services in areas that include accounting, assurance and advisory, risk, tax, and management, financial, technology, and human capital consulting.

Please visit our website, www.deloitte.com, to learn more about our thinking and approach to business issues.

Deloitte & Touche LLP
Deloitte’s Audit & Enterprise Risk Services (AERS) help organizations create and protect value by taking a Risk Intelligent approach to managing financial, technology, and business risks.

Audit & Enterprise Risk Services
• Contract Risk and Compliance
• Enterprise Application Integrity
• Financial Statement & Internal Control Audit
• Financial Accounting & Reporting Services
• Financial Instrument Valuation and Securitization
• Finance and Operations Risk Transformation
• Governance, Regulatory and Risk Strategies
• Initial Public Offering Services
• Internal Audit Transformation
• Security & Privacy
• Merger & Acquisition Services
• Regulatory Compliance

Deloitte Consulting LLP
With deep industry knowledge, broad capabilities, and solid strategic alliances, Deloitte Consulting LLP helps our clients look at challenges from multiple angles and with the objective of avoiding unnecessary risk.

Consulting Services
• Analytics and Information Management
• Application Management Services / Rapid Application Remediation
• Category Management & Sourcing
• Customer Transformation
• HR Transformation / Compensation & Benefits Strategy
• Oracle
• Performance Improvement & Finance Transformation
• SAP
• Smart Grid
• Technology investments / Digital Enterprise and Mobility

Deloitte Consulting Innovation

Deloitte MarketPoint
Deloitte MarketPoint provides highly configurable, global scale microeconomic modeling solutions and services used by energy, utility, resource and commodity companies to assess market fundamentals, project prices and their implications for strategy and risk across constantly changing markets.
• MarketBuilder Models
• MarketPoint Reference Case Advisory Products & Data
• MarketPoint Managed Services Options
  • In-House Modeling
  • Strategic Consulting

Deloitte Financial Advisory Services LLP
Deloitte Financial Advisory Services (FAS) advises clients on managing business controversy and conflict, executing deals, and maintaining regulatory compliance. FAS provides services to companies throughout their lifecycle — from purchasing a company to investigating potential fraud.

Deloitte Forensic
• Anti-fraud consulting
• Anti-money laundering (AML) consulting
• Business intelligence services
• Corporate investigations
• Foreign Corrupt Practices Act (FCPA) consulting
• Discovery
• Litigation & dispute consulting

Advisory Services
• Business valuation
• Corporate finance advisory
• Corporate Restructuring Group (CRG)
• Engineering & construction consulting
• Real estate consulting

Analytics
• Data analytics
• Economic & statistical consulting
• Geospatial analysis
The Deloitte Center for Energy Solutions provides a forum for innovation, thought leadership, groundbreaking research, and industry collaboration to help companies solve the most complex energy challenges.
About the Deloitte Center for Energy Solutions

The Deloitte Center for Energy Solutions (the "Center") provides a forum for innovation, thought leadership, ground-breaking research, and industry collaboration to help companies solve the most complex energy challenges.

Through the Center, Deloitte’s Energy & Resources Group leads the debate on critical topics on the minds of executives — from the impact of legislative and regulatory policy, to operational efficiency, to sustainable and profitable growth. We provide comprehensive solutions through a global network of specialists and thought leaders.

With locations in Houston and Washington, DC, the Deloitte Center for Energy Solutions offers interaction through seminars, roundtables, and other forms of engagement, where established and growing companies can come together to learn, discuss, and debate.

www.deloitte.com/energysolutions

This publication contains general information only and is based on the experiences and research of Deloitte practitioners. Deloitte is not, by means of this publication, rendering business, financial, investment, or other professional advice or services. This publication is not a substitute for such professional advice or services, nor should it be used as a basis for any decision or action that may affect your business. Before making any decision or taking any action that may affect your business, you should consult a qualified professional advisor. Deloitte, its affiliates, and related entities shall not be responsible for any loss sustained by any person who relies on this publication.