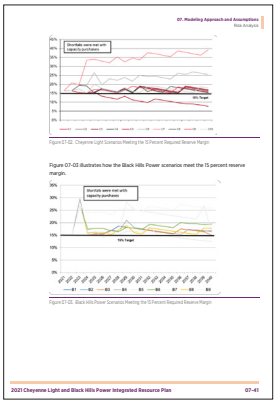
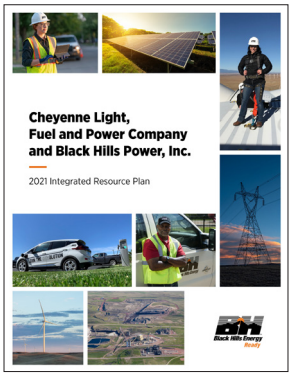
SOLARI COMMUNICATION

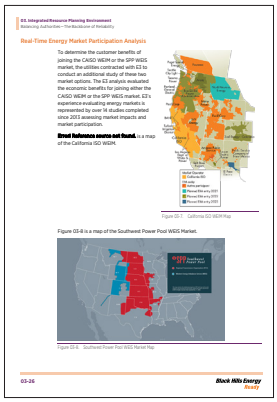
Energy Industry Portfolio

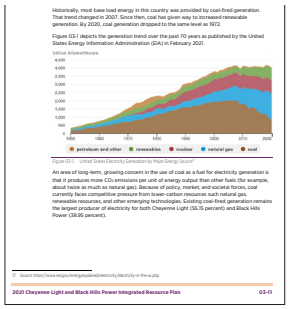
2021 Cheyenne Light and Black Hills Power Integrated Resource Plan

Black Hills Energy,
Rapid City, South Dakota









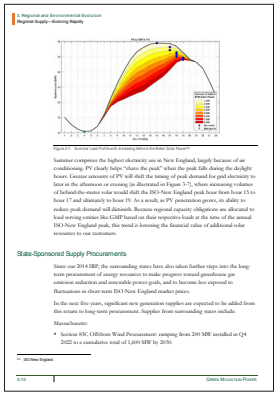
Leadership from Black Hills Energy sought out and contracted with Solari to write the joint Cheyenne Light (Wyoming) and Black Hills Power (South Dakota) 2021 Integrated Resource Plan. The IRP was supported by fifteen appendices.

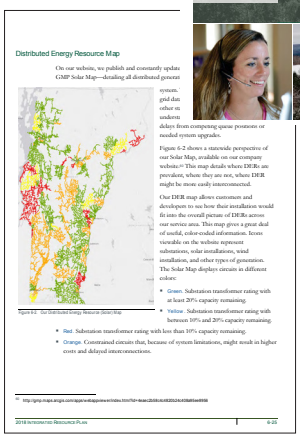
Solari was chosen because of our extensive experience in planning and writing IRPs that incorporate increasing amounts of renewable generation onto the power grid.

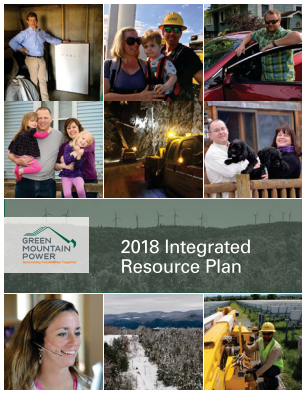
Our tasks included outlining the energy-related topics that comprise the heart of a robust report; "modernizing" the document design and look and feel of the report; and researching, interviewing, and writing the core of the report. We worked closely with their Resource Planning manager and their Renewable Generation Asset manager—both of whom were gracious and kind throughout the entire process—to develop the depth of content of the report.

Green Mountain Power 2018 Integrated Resource Plan

Green Mountain Power,
Colchester, Vermont







Green Mountain Power's 2018 Integrated Resource Plan had to comply with renewable generation goals established by the passage of Act 56 and by the publication of the Vermont 2016 Comprehensive Energy Plan.

Solari Principal, Rich Maggiani, applied his extensive experience with the increasing penetration of renewable resources onto a power grid in the creation of GMP's 2018 IRP.

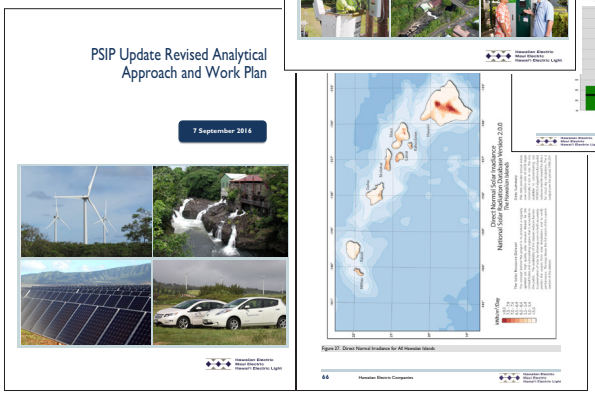
The 2018 IRP discussed several emerging topics, including how they plan to modernize their transmission and distribution grid through asset upgrades and replacements; meet 95 percent of 1990 Greenhouse Gas emissions by 2050; meet the RES requirement of 75 percent of retail sales from renewable energy generation, including distributed energy resources (DERs), by 2032; reduce per capita energy consumption by 15 percent by 2025, and by more than a third by 2050; and attain a 90 percent renewable generation portfolio by 2050. The IRP presented programs using customer-sited energy storage batteries to shave evening peak load.

SOLARI PORTFOLIO

Energy Industry Portfolio

Power Supply Improvement Plan (PSIP): December 2016

Hawaiian Electric Companies: Honolulu, Hawai'i



The Hawaiian Electric Companies are at the forefront of integrating renewable resources onto their electric power grids. By statute, they must achieve a 100% Renewable Portfolio Standard (RPS) by 2045. We have been honored to work with them on a series of resource plans for attaining that goal.

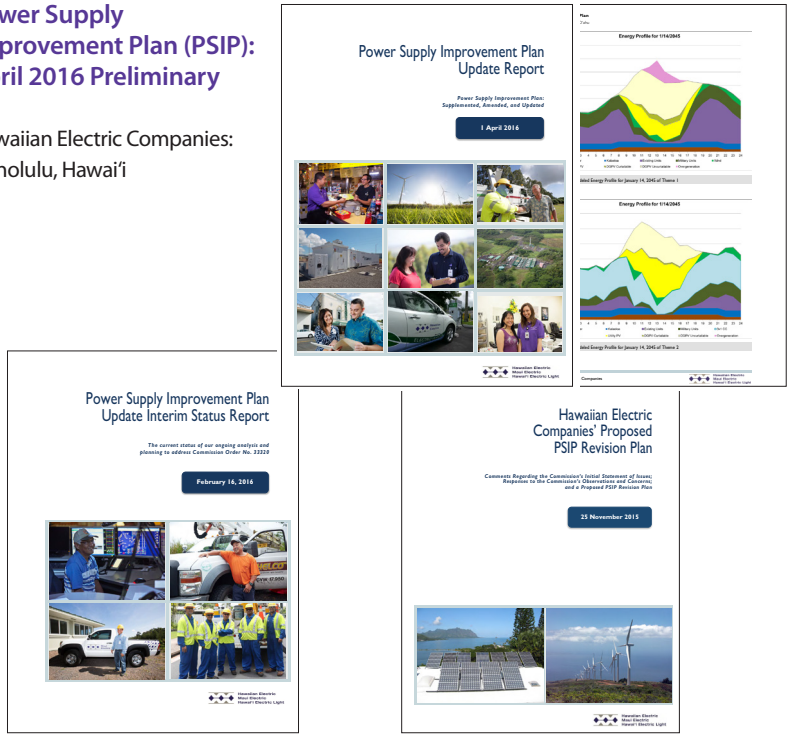
The PSIP: December 2016 resource plan, continuing the analysis filed in April 2016, aggressively pursued integrating renewable energy into the generation mix, explaining how 100% RPS could be attained by 2030.

The PSIP team of Company planners and several consultants used three modeling tools—RESOLVE, PowerSimm Planner, and PLEXOS—to develop, compare, and contrast a number of different resource mixes based on the same set of input assumptions. The planning process also included about two dozen intervenors admitted to the docket by the Public Utilities Commission.

This resource planning process began with the filing of a Revised Work Plan, and concluded with a December filing.

Power Supply Improvement Plan (PSIP): April 2016 Preliminary

Hawaiian Electric Companies: Honolulu, Hawai'i



The Hawaiian Electric Companies filed their company-wide resource plan: the Power Supply Improvement Plan (PSIP): April 2016 report and appendices in response to an Order from the Public Utilities Commission. The PSIP demonstrates how the three Hawaiian Electric operating utilities plan meet the state's 100% RPS target (by 2045) while maintaining a high level of system security, all at a reasonable rate. Generation resources include utility-scale renewable generation, distributed energy resources (DER), and an array of Demand Response (DR) programs.

This PSIP process included several outside consultants, a competitor seeking to purchase Hawaiian Electric, and 23 intervenors and participants who, by directive, played an active role in planning assumptions and resource selection.

The project included an Interim Status Report (filed half-way through the project's timeline) and a Proposed PSIP Revision Plan filed at the onset of the project. For all three filings, Solari Communication acted a writer, editor, and document project manager, ensuring that all Commission directives were met.

Energy Industry Portfolio

Integrated Demand Response Portfolio Plan (IDRPP) Executive Summary

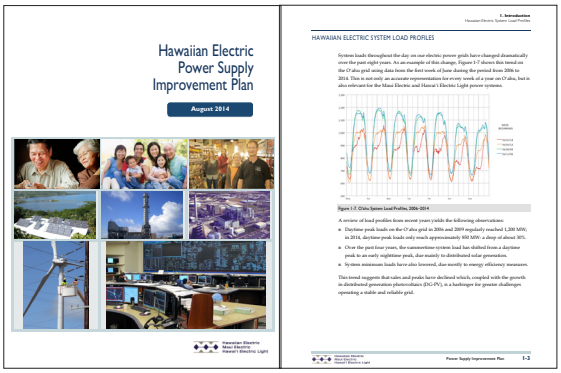
Hawaiian Electric Companies:
Honolulu, Hawai'i

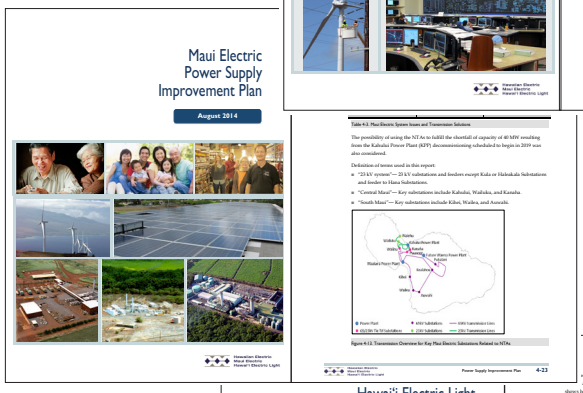
DEMAND RESPONSE PROGRAMS, WHEN PROPERLY designed and implemented, remain a solid method of both saving energy and managing the grid. Hawaiian Electric, working with an outside consultant, created a portfolio of demand response programs complemented with a thorough implementation schedule, then detailed this plan in their IDRPP.

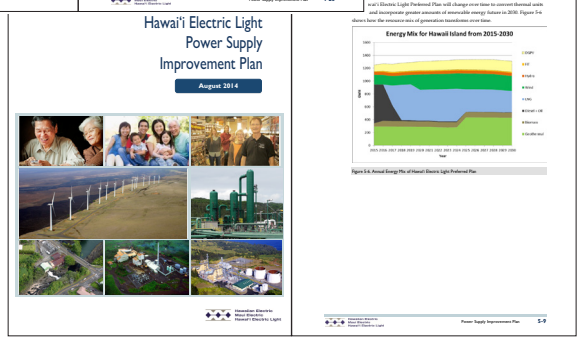
Rich assimilated the information in the plan, captured its essence, chose the most appropriate graphics, then wrote an Executive Summary that succinctly presented the plan's salient points in a style readily accessible to the company's many audiences, especially the Hawai'i Public Utilities Commission.

Hawaiian Electric Power Supply Improvement Plans (PSIPs): 2014

Hawaiian Electric Company
Maui Electric Company
Hawai'i Electric Light Company:
Honolulu, Hawai'i







Award of Excellence

IN A SERIES OF DOCKET ORDERS, THE HAWAI'I Public Utilities Commission outlined a set of directives for the three Hawaiian Electric Company operating utilities to follow when creating their Power Supply Improvement Plans (PSIPs).

All three utilities submitted separate PSIPs, which examined the current state of their respective systems, and clearly outlined how each electric grid would incorporate renewable energy into its power supply mix over the next 15 years. The result: the consolidated renewable generation would increase to approximately 67% by 2030 while reducing the average full-service customer's bill by 22% in real dollars.

At the time, these were landmark objectives.

Creating the PSIPs included many departments within Hawaiian Electric as well as the involvement of numerous consultants. Rich acted as editor in chief for the three reports, and was central in organizing and managing their timely filing, and in complying with all directives.

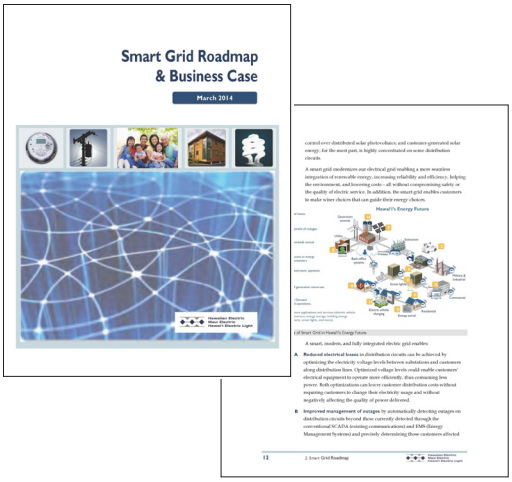
Using the dockets as guides, Rich wrote outlines for each of the three PSIPs, ran weekly meetings to ensure the timely and accurate submission of the required technical information, edited and rewrote information as needed, designed the overall look-and-feel of the page layout—all of which was conducted under extremely tight deadlines—and assimilated everything into the final reports.

Energy Industry Portfolio

Smart Grid Roadmap & Business Case

Hawaiian Electric Companies:
Honolulu, Hawai'i

Award of Excellence

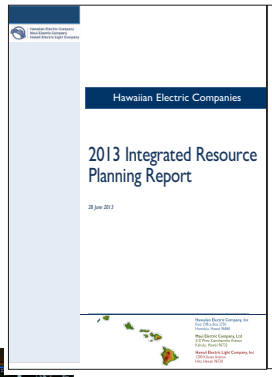


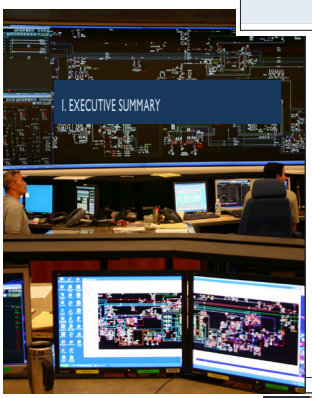
To comply with a Commission Order, the Hawaiian Electric Companies created a highly visible—and crucial—comprehensive roadmap and business case for implementing smart grid through all three of their operating utilities, on the five Hawaiian islands served.

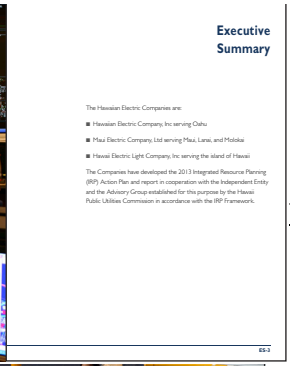
Working with technical details from the third-party installation company, utility engineering professionals, and utility executives, Rich wrote about the plan to implement smart grid and described the supporting business case. The task was to write a narrative that the average customer could read and understand. Upon completion, the Senior Vice President of Operations wrote of Rich's work, "You nailed it!"

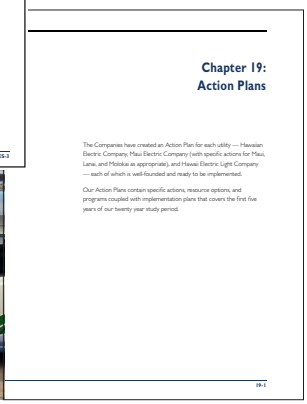
Hawaiian Electric 2013 Integrated Resource Planning (IRP) Report

Hawaiian Electric Company
Maui Electric Company
Hawai'i Electric Light Company:
Honolulu, Hawai'i









The Hawaiian Electric Companies contracted with Solari to help create their 2013 Integrated Resource Planning (IRP) Report. The report resulted in executable action plans for three utilities—Hawaiian Electric Company, Maui Electric Company, and Hawai'i Electric Light Company.

Rich worked closely with Hawaiian Electric's generation planning four-person team, providing writing, editing, design, and consultation services. Many others within the three utilities participated in the report's creation, including engineers, planners, and executives. Over the year-long process, the IRP team met weekly to strategize about the content of the report and its numerous resource options.

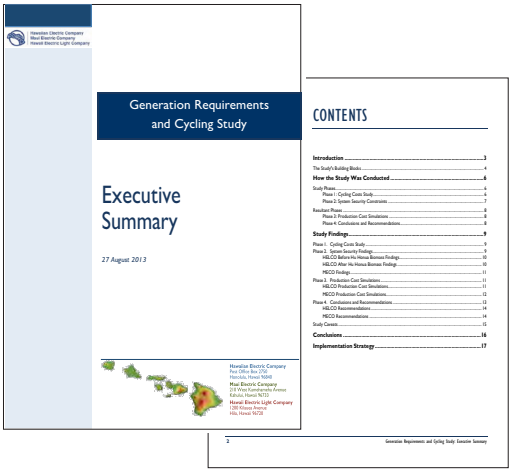
The Hawai'i Public Utilities Commission set a stringent framework to follow: the report must be based on scenario planning, must address 17 technical issues, and must result in reliable, low-cost generation.

The Commission also appointed an Independent Entity to oversee the process, which included 21 day-long meetings with an appointed 68-person Advisory Group of energy consultants, environmental activists, Commission staff, legislators, and members of the general public. Originally estimated to be 260 pages, Rich ensured the final 778-page IRP report followed the guidelines and was submitted on time.

Energy Industry Portfolio

Generation Requirements and Cycling Study: Executive Summary

Reliability Standards Working Group (RSWG),
Hawaiian Electric Company:
Honolulu, Hawai'i

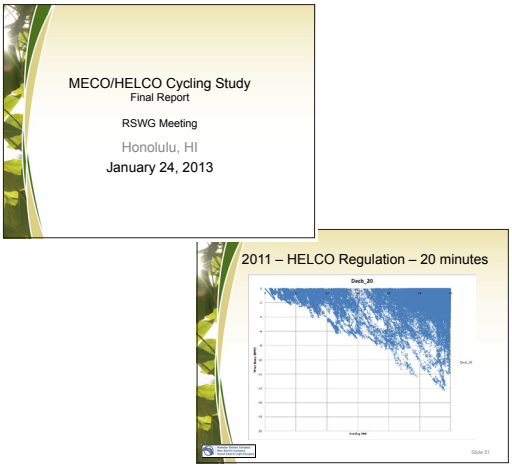


The Hawai'i Public Utilities Commission formed a Reliability Standards Working Group (RSWG) to ensure the reliability of electric generation and transmission across Hawaiian Electric's service area: O'ahu, Maui, Moloka'i, Lana'i, and Hawai'i Island.

One of the projects undertaken by the RSWG was a Generation Requirements and Cycling Study, a report that was both extensive and technical. The RSWG coordinator contracted with Rich to write an Executive Summary so that it could be easily understood by a wide audience. The result summarized the 100-page study in 15 pages, and was widely distributed to stakeholders across the state.

MECO / HELCO Cycling Study Presentation

RSWG: Reliability Standards Working Group:
Maui Electric Company
Hawai'i Electric Light Company:
Honolulu, Hawai'i



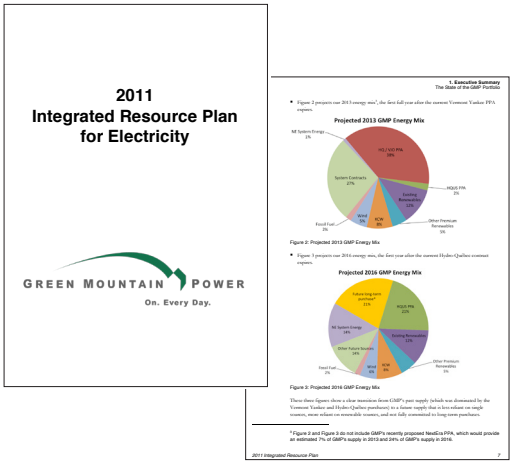
Executives from Hawaiian Electric needed to present the findings of this complicated and ground-breaking study to members of the Reliability Standards Working Group and the Hawai'i Public Utilities Commission.

Rich worked closely with the outside consultant whose firm conducted the study and with Hawaiian Electric executives and staff to boil down the study's essential detailed analysis, findings, and ultimate conclusions into a progression of understandable slides.

The presentation was delivered at the final RSWG meeting, attended by Hawai'i governor Neil Abercrombie, Commissioners, and numerous stakeholders.

2011 Integrated Resource Plan (IRP) for Electricity

Green Mountain Power:
Colchester, Vermont



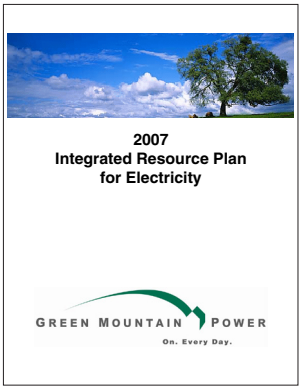
Green Mountain Power, Vermont's largest electric utility, contracted with Rich to design, write, and edit its 2011 Integrated Resource Plan (IRP) for Electricity. Rich worked closely with GMP generation planners and an outside consultant to strategize the content and resource planning used in the report. Analysis was based on scenario planning; the team developed four scenarios on which to base resource planning for the short- and long-term.

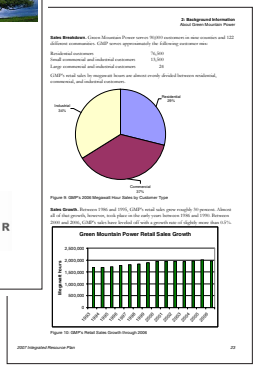
The final IRP was produced under extremely tight deadlines, concurrent with negotiations for a new power purchase agreement (PPA) that proved integral to available resources and affected resource planning over the next 10 years.

Energy Industry Portfolio

2007 Integrated Resource Plan (IRP) for Electricity

Green Mountain Power:
Colchester, Vermont



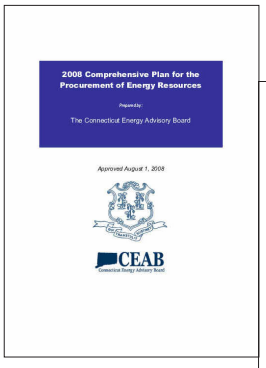


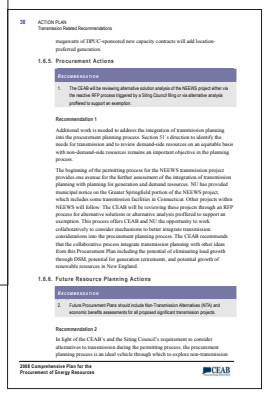
This Integrated Resource Plan (IRP) for Electricity explains how Green Mountain Power (GMP), Vermont's largest electric utility, intends to meet demand over the next 25 years, and describes the transition toward renewable sources. The IRP has many audiences: GMP's Board of Directors, Vermont's legislature, State policy boards, and the general public. GMP wanted a report that set a new standard in clarity.

Working closely with GMP executives and technical consultants, Rich designed the overall report, revised and edited text, and redesigned many graphics to successfully meet the target deadline and GMP's communication goals.

Comprehensive Plan for the Procurement of Energy Resources

The Connecticut Energy Advisory Board:
Rocky Hill, Connecticut



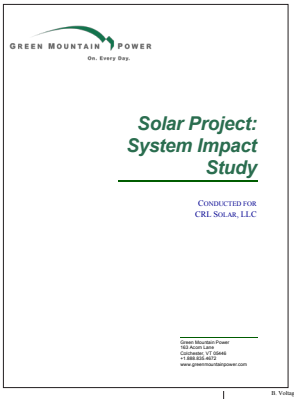


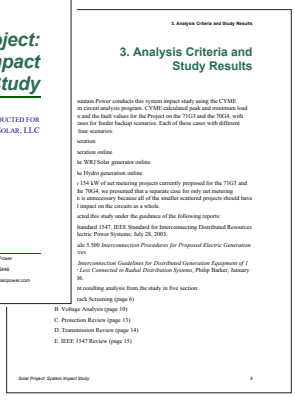
The Connecticut Energy Advisory Board (CEAB) must submit a report to the state legislature and governing boards about how the state's electric utilities plan to procure energy in the future. The CEAB wanted a clearly written, focused report that professionally communicated their findings to their diverse audience, including the general public.

Working with Daymark Energy Advisors, Rich designed the overall look and feel of this 260-page report (including appendices); rewrote, revised, and edited technical input; and wrote the Executive Summary — all under an extremely tight deadline.

Solar Project: System Impact Study

Green Mountain Power:
Colchester, Vermont





Engineers at Green Mountain Power conducted a comprehensive system impact study for the siting of a solar project. Rich worked with the lead engineer to write and edit the report, and organize it into chapters that described the study, then explained how the study was conducted, its findings (such as the interconnection requirements), and its conclusions.

The report included point-by-point responses to thirteen fast track criteria imposed by Vermont's Public Service Board.

Appendices detailed the electric and photovoltaic specifications necessary to successfully connect the solar generation to the existing grid.

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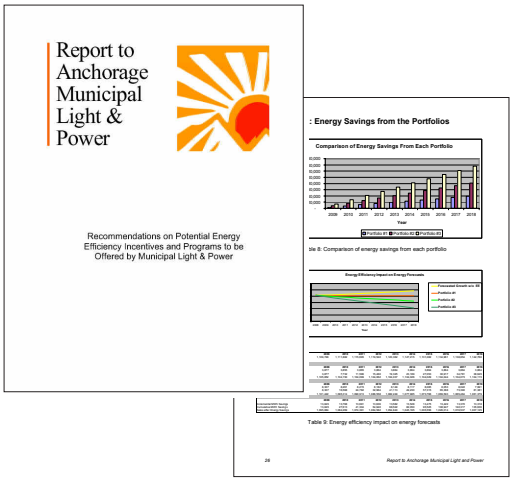
Energy Industry Portfolio

Potential Energy Efficiency Incentives and Programs

Anchorage Municipal Light & Power (Alaska)



Preparing for potential future procurement issues, Anchorage Municipal Light & Power sought ways to offer energy efficiency programs to their customers so that future power needs could be reduced. This report describes three portfolios of energy efficiency programs, each with a different budget and return on investment (overall monetary savings). Each portfolio clearly describes how customers can save energy, receive rebates, take advantage of financial incentives, and benefit from technical assistance.

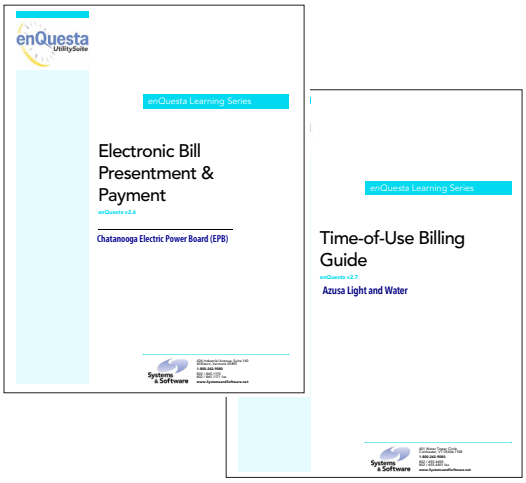
With technical information from a consulting firm, Rich designed the report, organized information, revised and edited it, designed graphics — creating a highly readable and accessible report.

Chattanooga Electric Power Board

Chattanooga, Tennessee

Azusa Light and Water

Azusa, California

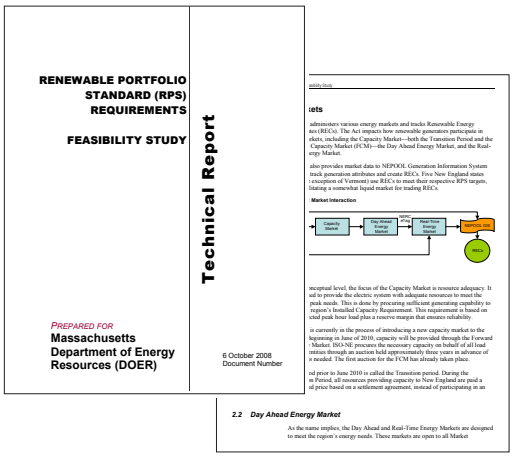


Oftentimes a utility has a specialized way of completing a common procedure. Rather than trying to interpret and adjust general instructions, we wrote a series of customized guides for completing numerous specialized procedures. While the underlying software is similar, there are many variances depending on the utility and its location in the United States (for example, the weather in the north is different than the south).

To meet the needs for these utilities, we customized instructions for most procedures. Thus, employees learned the exact way of completing a procedure. This helped the utility standardize their procedures, train employees faster, reduce mistakes, and boost customer service.

Massachusetts Department of Energy Resources (DOER)

Boston, Massachusetts



This report explores the feasibility and practicality of instituting certain requirements for Renewable Portfolio Standards (RPS) as required by the Green Communities Act, and then how the Massachusetts DOER can write regulations from these RPS requirements. Included in this exploration are the ramifications of how various energy markets effect how ISO-New England creates and tracks Renewable Energy Credits.

Working with Daymark Energy Advisors, our editorial impact affected the technical contents of the report, its organization and presentation, ensuring clarity and consistency of content and terms, so that the discussion built a strong case for the ultimate recommendations.

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