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Journey to Sustainability

10 Questions

Frances Beinecke



A Journey to Sustainability

Fort Collins remakes its culture to become a model sustainable community.

BY LYNN L. ADAMS

Fort Collins Utilities, a municipally owned, multi-service provider of electric, water, waste water and storm water services, has taken decisive steps to transform itself into a “Utility for the 21st Century,” guided by a vision of enterprise-wide sustainability. Passing a major milestone on what is certain to be a long journey, the utility has completed a detailed sustainability plan that is being rolled out in 2009. The plan, which has a decided focus on a substantive and rigorous approach, aligns well with the inspired ambitions of the city’s leadership, as well as the prevailing culture of the community. Fort Collins is a college town of 137,000 people, located along the front range of the Rockies, some 60 miles north of Denver. It has an environmental ethic befitting the natural beauty of its surroundings, and a political and business environment that most characterize as progressive. The city leaders envision the greater Fort Collins community becoming a model of sustainable living.

The challenges of the transformation

are formidable. “I was pretty disappointed by the lack of vision I saw when I came on board a few years back,” said City Manager Darin Atteberry, executive sponsor of the Utility for the 21st Century sustainability plan. “Traditionally, [the utility] had done a pretty good job in terms of maintaining our assets and providing reliable service at very low cost. That’s good, something to build on, but it is only part of what will be needed in a resource-constrained environment where the drivers, from reducing greenhouse gases to more renewables, are growing stronger.”

To meet this challenge the city selected Brian Janonis to lead Fort Collins Utilities into the future. “Brian’s a visionary who has this notion of sustainability built into his DNA,” Atteberry said. “My job has been to encourage Brian and his team to think big, be pragmatic, and do something really spectacular for Fort Collins Utilities and the Fort Collins community. And to me, spectacular means putting the Utilities at the leading edge of sustainability. Add to this the fact that the mayor, City Coun-

cil and community believe in and support this direction.”

Pragmatism is a key component of Atteberry’s management style, which combines the stretch of visionary ideas with the grounded rigor of disciplined accounting. In recent years, he has moved Fort Collins from what he calls a “trust-us” to a “prove-it” type of government. “We now budget for outcomes. Every city service has to go through the equivalent of a competitive process, documenting the outcomes they are trying to accomplish over the next budget cycle. When these are funded, we hold them accountable.”

The process emerged from financial necessity, said Atteberry. “For decades, we enjoyed 8 to 10 percent per year revenue growth. Then we had a combination of the tech-industry bust and a lot of regional retail competition. Now we are in the 0 to 3 percent growth range, while the internal service cost curve still wants to follow the old revenue curve. Living in an era of limited resources requires us to be better stewards of all our resources – human, fi-

nancial and natural.”

The impetus for the Utility for the 21st Century project grew out of this need for stewardship and the disconnect between customer expectations and limited resources, said Janonis. In late 2006, Fort Collins Utilities hired R.W. Beck, Inc. to conduct an in-depth survey of its residential and commercial customers. “Among other things, this research defined a ‘green gap,’” he said. “Our customers thought we were doing more around sustainability issues than we actually were. And they expected us to be doing even more. Our resources were limited, our costs were going up, we were facing new opposition to the development of our water supplies, and growing criticism of our coal-based electric generation. In short order, we had to turn from being a traditional developer of natural resources to one of being a true resource steward.”

To develop a utility plan commensurate with the changing times, Brian Janonis hand-picked a Core Sustainability Team – comprised of 20 employees, managers and supervisors – to work with senior management, an Advisory Panel of external stakeholders, and a team of strategy and technical consultants from R.W. Beck. The team was responsible for moving sustainability from the realm of good intentions to a purposeful and well-structured plan of action to guide Fort Collins Utilities in the coming decades.

The Core Sustainability Team began by crafting a purpose statement to guide its deliberations and work processes. The statement calls for, “Inspiring community leadership through reducing environmental impact while benefiting customers, the economy and society.” Imbedded in the purpose statement are three critical commitments: to pursue “triple bottom line” thinking, to ensure an outward orientation to the community the utilities serve, and to provide an organizational model of sustainability designed to inspire the community.



‘Our customers thought we were doing more around sustainability issues than we actually were,’ said Utilities Executive Director Brian Janonis. Photos by Tim O’Hara.

The concept of considering triple bottom line impacts is used increasingly in sustainability strategy development and refers to integrating economic,

environmental and social considerations.

The development process of the plan proceeded in four distinct stages. First, the team established a baseline audit using recognized guidelines for sustainability reporting. Second, it formed a clear strategy that involved identifying four key issues, along with supporting strategies and key performance indicators to measure progress. Third, it used a proprietary optimization model to run

Fort Collins Utilities Steps to Become a ‘Utility for the 21st Century’

- **Conducted analysis and market research that validated the need for an enhanced focus on sustainability.**
- **Aligned with city direction; city manager and utilities executive director committed to direction; selected initiative champion.**
- **Developed a Core Sustainability Team of employees, supervisors, senior management, and technical/strategy consultants to develop an integrated action plan.**
- **Assembled an Advisory Panel of external stakeholders, engaged to provide input on the sustainability direction as developed and to connect with the community.**
- **Crafted a sustainability purpose statement to frame direction, guide deliberations and work processes; incorporated a commitment to the triple bottom line of economic, environmental and social considerations**
- **Conducted a comprehensive baseline audit of the four utility services, administrative, financial, customer and other functions for ongoing sustainability reporting and tracking progress to plan.**
- **Developed a plan to accomplish goals associated with four key issues —organizational culture, external stakeholder engagement, triple bottom line business practices and work force empowerment — and identified key performance indicators to measure progress.**
- **Analyzed various sustainability programs, and utilized R.W. Beck OptimitySM (customized optimization model) to identify the most cost-effective portfolio to meet established goals, such as greenhouse gas reductions, renewable energy goals and rates impacts.**
- **Developed and modeled various scenarios – aggressive, straight line and conservative – that would meet 2020 targets with associated cost and rates impacts.**
- **Published a comprehensive plan and report, including a detailed implementation plan to ensure accountability and progress to plan. Established various methods to support implementation; launched key initiatives.**
- **Filed sustainability report with the Global Reporting Initiative, the most widely used standard framework for sustainability reporting. Fort Collins Utilities became the first municipal utility to file such a report.**

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scenarios and identify the most cost effective programs to resolve the issues identified. And finally, it built a detailed implementation plan to ensure continuous progress and accountability, an approach very much in line with Atteberry's disciplined requirements of "budgeting for outcomes." The sustainability team completed the bulk of its work by the fall of 2008 and published a comprehensive plan and report for presentation to the Fort Collins City Council in early 2009. The Utilities also produced and filed a Sustainability Report with the Global Reporting Initiative, an international organization, headquartered in The Netherlands, to support worldwide sustainability. Fort Collins Utilities is the first municipal electric utility to file a sustainability report with GRI.

The baseline audit began in late 2007 and touched upon all of Fort Collins Utilities' service areas and administrative functions. The audit relied upon GRI guidelines for measuring sustainability performance. GRI is the world's most widely used standard framework for sustainability reporting, and uses a wide variety of indices in six key areas: economic, environment, labor, human rights, society and product responsibility. R.W. Beck is a registered organizational stakeholder in GRI and was instrumental in sorting through the voluminous set of potential measures to find the most appropriate benchmarks for the future. The economic, environmental and electric utility metrics were among the most relevant and constituted the bulk of the initial audit in addition to a supplemental section developed to capture water utility metrics. For example, since Fort Collins is a part owner of the Platte River Power Authority, the audit reported Fort Collins Utilities' share of the coal burned by the agency's power generation facilities as 867,000 tons in 2006. The Utilities also re-

ported using recycled paper for 60 percent of customer mailings and consuming more than 69,000 gallons of fuel for its fleet of vehicles. Starting in 2009, Fort Collins Utilities will report annually on selected baseline metrics. These metrics also form some of the core content in the annual Sustainability Report.

Through a series of intensive work sessions in mid-2008, the Core Sustainability Team identified and endorsed four of the most pressing sustainability issues facing the utility. These issues in turn solidified into the four central goals and form the foundational framework for the entire plan.

The first involves the issue of culture at Fort Collins Utilities and calls specifically for "a cultural transformation that embeds sustainability throughout the organization."

The second focuses on external stakeholder engagement and calls for



"Cultural change may be the most difficult," said Steve Catanach, Light and Power manager.

"educating and motivating stakeholders to support sustainability efforts."

The third calls for incorporating "triple bottom line" business practices that optimize and balance economic, social and environmental considerations.

And the fourth takes the issue of cultural transformation a step further, by calling for the Fort Collins Utilities' work force to be "empowered, engaged and supported to achieve sustainability goals."

Each goal is accompanied by a set of strategies and key performance indicators (KPI) to measure progress. The KPIs for three of the four goals will be data-driven, relying on annual surveys of the work force and external stakeholders and customers. The KPIs for the triple bottom

line goal is more far-ranging and captures the substance of the sustainability efforts. They will be based in part on the annual GRI measures, showing steady progress against the baseline audit. And they will be based in part on progress toward meeting institutionally established goals for renewables. The state of Colorado has a renewable portfolio standard calling for 10 percent renewables by 2020 for municipal utilities. The goals for greenhouse gas reductions are coincident between the state and the city, calling for a 20 percent reduction (from 2005 emission levels) by 2020, and 80 percent by 2050.

Members of the Core Sustainability Team believe the challenges posed by the four major goals will be quite different.



"The more ways you can reach and involve customers, the better results you get," said Patty Bigner, manager of customer and employee relations.

"The triple bottom line may be the easiest of the four to achieve because we can accomplish this through procedures,

work practices, good management, and day-to-day operational behavior," said Steve Catanach, a key member of the team and recently hired manager of Fort Collins Light and Power. "Cultural change may be the most difficult. It is one thing to change behavior; it is another thing to change how people think. To make this work, we will need to create a culture from top to bottom where sustainability is engrained in our spirit, a core consideration throughout the organization."

Patty Bigner, manager of customer and employee relations and the champion for

the external stakeholder issue, tends to agree. "I'm really intrigued by how we imbed sustainability in our culture; it is not going to be easy. In contrast, the external rollout is a relatively well known process, but with a bit of a twist, since we hope to engage the community in a discussion about sustainability. We are planning several new ways of fostering this discussion. One of the things I've learned in my career is that the more ways you can reach and involve customers, the better results you get. This means we have to really be out there in the community."

Brian Janonis sees a strong bridge between the internal and external goals. "I think the cultural transformation we achieve within the utility will go a long way toward inspiring the community," he said. "I want us to help lead the community in the direction of sustainability."

Through months of deliberation, the Core Sustainability Team came to appreciate that the efforts to change the corporate culture would have to begin



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with the individual. Each person in the utility would have to take stock and examine personal behavior and thought processes. Patty Bigner remembers how this came home to the team in the early days of its deliberations. "One member of the team challenged us to make a personal commitment to the project by measuring our energy use on a regular basis, by examining our lifestyle, by paying attention to what it means to live more sustainably. In short, we were asked to walk the talk. What was remarkable was the impact this had, the ideas that bubbled up as a result of this personal examination. It really served to prime the pump, and made us realize that in five to 10 years this will be a way of life for all of us. We all know that because we have had this conversation, it will be impossible to go back. Our organization will never be the same."

The sustainability team's next task was to identify the potential field of sustainability-related programs at Fort Collins Utilities and then to prioritize them. This



The sustainability project builds on an earlier project in Fort Collins to turn the city's old town neighborhood into a zero-energy district.

was accomplished through program prioritization and use of an optimization model. The team first developed a list of all current sustainability-related programs, then developed a list of potential new programs that might help Fort Collins Utilities meet its objectives. With the help of R.W. Beck, the team wrestled with the complex task of trying to evaluate and quantify the market reach and cost-effectiveness of each of these programs from a triple-bottom-line perspective and used these evaluations to winnow the list to a manageable set. They culled the list to around 20 critical programs that were used as a basis for optimization analysis.

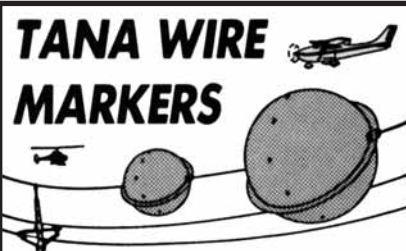
An optimization model, in broad strokes, is an analytical tool that carries out a simultaneous evaluation of a variety of factors to yield an optimum solution. In this case, the factors fed into the model included sustainability goals, such as greenhouse gas reduction targets, energy efficiency goals, and renewable portfolio standard requirements, as well as a series of boundary conditions, such as limitations on rate increases and financial resources. The strength of an optimization model lies in its flexibility, namely its ability to run different scenarios based on

varying inputs. You can add a new program, or subtract a program, for example, or accelerate or slow implementation and find out the new optimum path to meet your objectives.

Fort Collins Utilities relied upon an advanced version of this tool. "In order to help Fort Collins Utilities define the next best dollar spent, we tailored our proprietary model," said Tim Corrigan, executive vice president of the energy sector at R.W. Beck. "This will be a powerful, ongoing tool for the utilities to use as they manage and modify their sustainability approaches in the months and years ahead."

This kind of model has a number of long-term benefits. "It gives us the technical criteria behind which we make decisions," said Janonis. "It takes the arbitrariness out of the analysis, and provides ongoing insight that can help us evaluate alternatives to meet our goals, as well as the optimum rate at which to proceed. Importantly, it is going to help us concentrate our efforts on those areas most effective in meeting our goals." Some of the key programs that emerged from the analysis with the highest payoff potential include advanced metering infrastructure, commercial and residential energy effi-

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ciency programs, and green buildings programs, as well as some programs much less obvious. "For example, we have a small hydro project that looks very promising, one we will probably implement at our water treatment facility," said Janonis.

Steve Catanach values the quantitative rigor of the analysis. "Beck's model gives us a tool that can provide solid, repeatable information to support a decision," he said.

Patty Bigner likes the potential value it can add in planning for community programs. "The model adds transparency to the decision making process," she said. "It provides a way to explain to policymakers and the public what is constraining and driving our decisions, and how we made our decisions."

The new sustainability plan is expected to be well received by the Fort Collins community. It dovetails with a wide variety of other local initiatives, including the new Climate Action Plan, the draft Energy Plan, a commitment by the city's renowned Colorado State University to become carbon-neutral by 2020, and economic development strategies the city is pursuing.

"I see absolutely no disconnect between where we are heading with Utility for the 21st Century and other city initiatives including businesses, schools, CSU and the closely related Clean Energy Cluster," said Atteberry, the city manager.


The entire economic development effort in Fort Collins is now organized around five different economic clusters, including clean energy and biosciences, among others, which are designed to attract businesses that share Fort Collins' commitment to sustainability. "We have 100 professors and researchers at CSU dedicated to clean energy with the potential for spin-off ventures," said Atteberry. "I'm very excited about connecting and leveraging the city's resources; by that I mean leveraging the potential of our university, our utility, and our economic strategies to work together."

"One project that we are really proud of is the Zero Energy District, known as Fort Zed," said Janonis. "Building on an \$8 million grant from [the U.S. Depart-

ment of Energy], local business and industry have formed a partnership to carve out part of our service territory in an old part of town – primarily commercial and industrial – and make it a net zero energy district. We'll be starting out with some distributed generation, renewables and some automated metering infrastructure in the first phase. We'll try to lean on a small part of town before taking it to the whole city."

Fort Collins Utilities' approach reinforces the parallel efforts under way in the Fort Collins Climate Action Plan and the Energy Policy. The climate plan, which calls for a variety of voluntary activities to reduce the city's carbon footprint, has targeted an ambitious reduction of between 268,000 and 378,000 tons of carbon dioxide annually by 2012. This would keep Fort Collins on the trajectory for an 80 percent greenhouse gas reduction by mid-century.


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The draft Energy Policy, which is expected to be adopted this year, aligns with the city's Climate Goals. One of the potential obstacles in the rapidly gathering civic momentum toward sustainability is the fact that Fort Collins Utilities gets its power from a joint action agency owned by four different cities, each with different demographics and perspectives. The Platte River Power Authority obtains its power primarily from a 274-MW coal plant, four

combustion turbines, 10 wind turbines in Wyoming, and federal hydro power purchased from Western Area Power Administration. The coal-fired electricity is the bedrock of low rates in Fort Collins. "Sometimes that's a hindrance—the fact that our power is so cheap—averaging 6 cents per kWh retail," said Janonis. It is inevitable that renewables and sustainability programs are going to put upward pressure on rates, he said.

"How do we influence the next generation of power we use? How do we move from coal-burning power plants to much more sustainable sources? Those are critical questions for the future," said Atteberry. "We have a very unique opportunity as one of the owners of the Platte River Power Authority to help find the best pathway forward."

Fort Collins is moving aggressively to give substance to its vision of a "Utility for the 21st Century," and could well emerge as one of the national leaders in sustainability. If so, what advice would they offer other municipalities thinking about embarking on this journey? Janonis offers three pieces of advice. "First, understand this will take a real level of commitment. It is not just window dressing. Second, identify the thought leaders within your own organization – wherever they might be found – and pull them together to form a creative, participatory team. Third, find someone to help guide you through. Our consultants brought broad perspective from other thought leaders and utilities, real technical depth, and were particularly good at keeping us focused on our strategic objectives."

Patty Bigner's advice: "Just start. Don't be intimidated by the perceived enormity of the undertaking. We have found even the smallest discussion generates far more impact than you might think. Once you start, the path will lay out in front of you."

Darin Atteberry emphasizes keeping the broad strategic objectives foremost in your mind. "Change is very hard, and transformational change can be accomplished only by setting a vision and keeping a long-term perspective before you. After all, long term is the essence of sustainability." ■

Lynn Adams is a vice president at R. W. Beck, leading the firm's utility business consulting initiative. Her recent work has focused on integrating sustainability approaches in response to legislative and market demands. She co-authored *The Art of Strategic Leadership*, which defines a planning methodology for business direction.

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