

Building Energy  
Transparency

# ENERGY DISCLOSURE

## & THE NEW FRONTIER FOR AMERICAN JOBS

by Andrew C. Burr

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Institute for Market Transformation  
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# Foreword

by Elton Sherwin

We have entered a new era of constrained spending, high unemployment and complex political turmoil, yet the question on everyone's mind is simple: How do we create jobs?

**Surprisingly, the answer is right in front of us.** New laws in New York City, San Francisco and other large cities requiring energy performance disclosure for buildings have the potential to become a 21st century engine for job creation and significantly improve the course of America's energy future.

As a Silicon Valley venture capitalist, I should believe that technology will rescue our economy. After all, I spend my days searching for the next big thing: Hybrid vehicles, smart technologies, new sources of energy and the like. Sometimes called "clean tech," these are the breakthroughs that could reduce our addiction to foreign oil and create jobs.

But will technology alone really create jobs? I worry that many existing technologies are languishing, unused. For example, in commercial and industrial buildings, smart lights and smart motors can reduce electricity consumption by more than 50 percent. Yet, even in California, these money-saving technologies are rarely used. My enthusiasm as an investor is muted when last year's big innovation is collecting dust on the shelf.

This is troubling. Why invest in new technologies when no one is using the existing money-saving technologies? If energy-saving products don't sell, it is bad news for the environment and terrible news for American workers. If money-saving innovations sit on the shelf, the unemployed sit at home.

Economics 101 says when a technology saves money, it will be used. Not so



Led by Mayor Michael Bloomberg, New York City has adopted sweeping building energy transparency requirements that affect approximately 16,000 of the city's largest commercial and multifamily residential properties. Business leaders in New York credit this initiative for expanding the market for energy-efficient products and services and creating local jobs improving building operations.

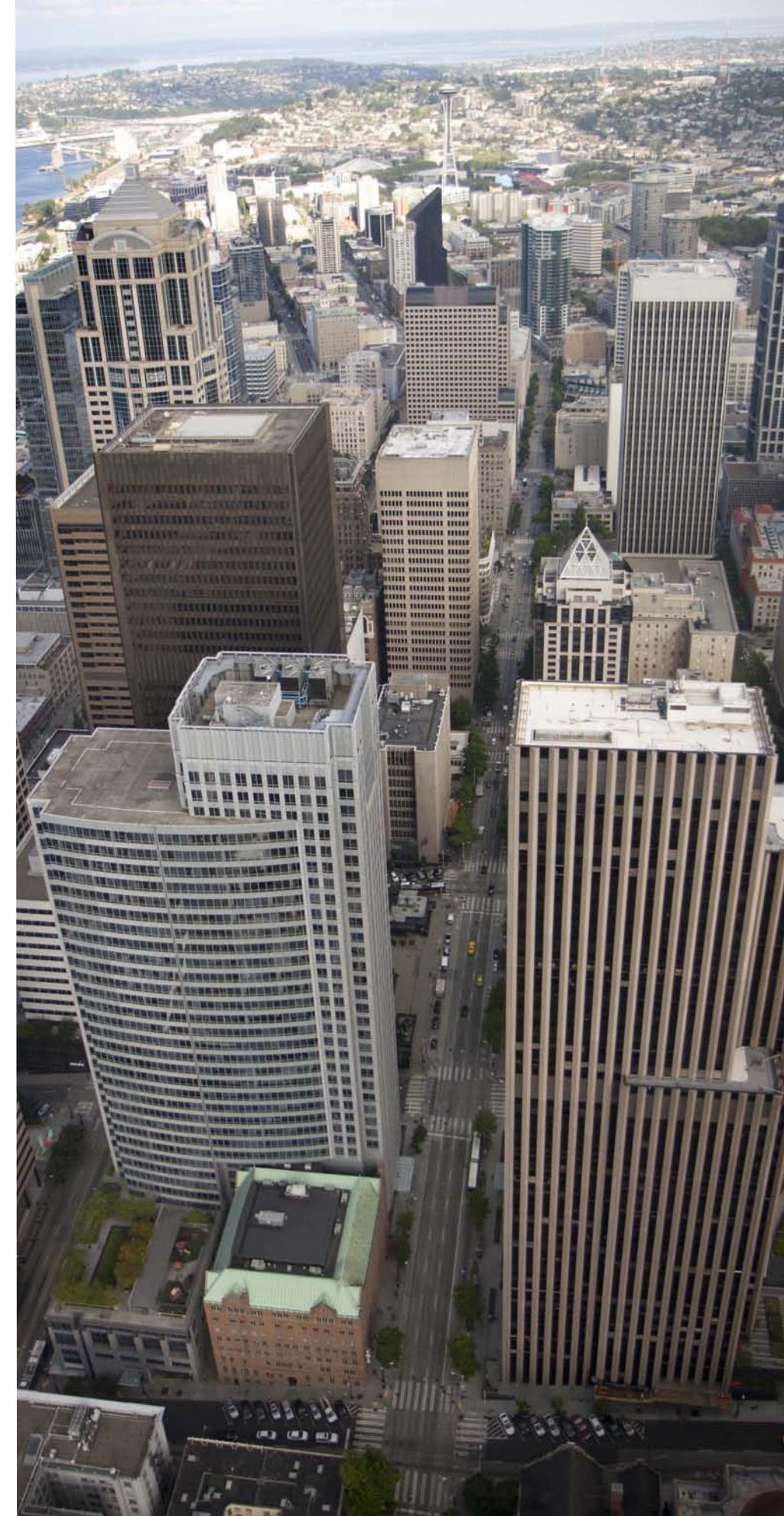
in my experience. Amid the excitement about clean technology, the bigger problem is: How to motivate the use of existing energy-saving products.

Some American cities are solving this motivation problem with a novel new idea: Grade buildings based on how much energy they use and publish the scores on the internet.

Brilliant in its simplicity, public disclosure of building energy consumption will start a stampede to upgrade buildings – motivating the good buildings to achieve higher levels of efficiency and prompting the laggards into action. Using the nationally accepted ENERGY STAR performance scoring system – which grades buildings from "1" to "100" and is based on actual utility bills – an anemic score of 17 in a "class A" Manhattan office tower will generate action: An energy auditor will be hired, meters installed, lighting ungraded, fans and motors tuned, and old refrigerators replaced. The ENERGY STAR score of 17 becomes 77. New jobs will be created and the building owners and tenants will spend less on their utility bills.

Under Mayor Michael Bloomberg's direction, New York City is now implementing a public disclosure law for its largest commercial and multifamily buildings. Washington, DC, and San Francisco are following close behind. San Francisco's situation is noteworthy because its regulation was spearheaded by large property owners who had grown weary of green-rating schemes that sometimes give top honors to very wasteful buildings and usually fail to recognize the most efficient buildings.

The owner of one iconic building in San Francisco discovered his building had an ENERGY STAR score of 1, the lowest on the scale of 100. High utility bills had been ignored in this San Francisco landmark, but the threat of public



disclosure finally inspired an energy makeover.

In each of these cities, building owners will no longer ask what is the cheapest air conditioner or the cheapest light fixture, but rather, "How can I get my building to an 80 or 90?" Excellence will become the goal. And as building owners install smart thermostats, smart lights and smart fans, jobs will be created.

Public disclosure of commercial building energy consumption will unleash the magic hand of capitalism. Eventually, disclosure should become the law across America. In the meantime, more cities should follow the leadership of New York City, San Francisco and Washington, DC. Public disclosure will motivate millions of "energy make-overs" and employ many thousands of skilled American workers. With no subsidies, these cities are helping secure America's energy future.

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Elton Sherwin is a Silicon Valley venture capitalist and the author of two books, "Addicted to Energy" and "The Silicon Valley Way." The Senior Managing Director at Ridgewood Capital, he serves on the boards of five private companies, including NRG-Dynamix, which develops non-electric hybrids.

# The New Frontier for American Jobs



16,000

Number of commercial and multifamily properties required to annually benchmark and publicly disclose energy performance under the city's Local Law 84.

By the Numbers: How transparency has transformed business in New York City in the past 18 months

We have long known that improving the energy efficiency of America's buildings can fuel economic growth in local communities across the country.

Reducing energy consumption in our offices, malls, schools, apartment buildings and other large structures creates high-paying jobs that will never be exported and puts dollars back in the pockets of businesses and families. Most of the existing buildings in American cities were built decades ago and will live for generations to come before they are replaced. By investing in our past, we can reinvest in our future.

Our cities are up to the challenge. Innovative energy disclosure rules adopted by several of America's largest cities are shepherding in a new era of energy awareness and transparency in existing buildings. Simple yet powerful, these rules are uncovering energy-savings opportunities that have gone unnoticed for years by building operators and businesses, un-

locking market-driven demand for energy-efficient products and skilled workers including engineers, facilities managers, energy auditors, sustainability consultants, software developers, architects and construction workers. Better still, this pro-business environment is emerging without public investments or subsidies, proving that job creation and fiscal responsibility can go hand-in-hand.

This report profiles just a few of the many business leaders who today are leveraging greater energy transparency to do more business and create real jobs by controlling energy costs for businesses and consumers. With similar stories waiting to be told in scores of communities across the country, this new frontier for American jobs is well within our reach.

## Competing to Use Less

75 million

Size in square feet of the combined portfolios of new real estate clients at Ecological, a locally based sustainability services firm.

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There is intense competition among automakers to sell vehicles that cost us less at the pump.

Food companies compete for our appetites by slashing calories and using healthier ingredients. But imagine a world where cars and trucks didn't have fuel economy stickers, and not a single snack or beverage carried a nutritional label. Without that information, there would be little competition among manufacturers to make fuel-efficient vehicles or healthier foods – and little demand for them – because nobody would know the difference.

For decades, nobody has known the difference between an energy-efficient building and an energy-inefficient building. Companies that can help businesses reduce energy usage and utility bills have struggled in a marketplace where information about building energy consumption is virtually nonexistent.

That's why these companies are welcoming building energy transparency with open arms. They know that better information means more market-driven demand and competition for better buildings. It means more private investment channeled into improving building operations, training workers, conducting energy audits, retuning mechanical systems and upgrading equipment. And that means more work improving American buildings and more American jobs.



40

Expected number of building energy improvement projects to be executed this year by FS Energy, a locally based multifamily energy management firm, up from just 7 projects in 2010.

By the Numbers: How transparency has transformed business in New York City in the past 18 months

# Profiles

**Ecological | [www.ecologicalgroup.com](http://www.ecologicalgroup.com)**

## Lindsay Napor McLean, Chief Operating Officer

- More than 400 new clients covering 75 million SF in New York City in past 12 months as a result of Local Law 84 and other Greener, Greater Buildings Plan laws
- “The Greener Greater Buildings Plan has spurred the New York market to interest and activity around energy efficiency. As the benchmarking process was completed for the first year of compliance in 2011 and buildings were able to see how their usage stacks up, we saw a significant rise in the number of clients that are interested in the actions they can take to improve their building's efficiency, and their bottom lines. The transparency that GGBP and Local Law 84 bring to the market around energy use is having the intended impact and sharpening the focus on ceasing to waste expensive resources. We anticipate that this trend will continue in the New York market with each year of compliance reporting.”



**Energy Print | [www.energyprint.com](http://www.energyprint.com)**

## Mike Williams, Chief Operating Officer

- Doubled subscription base and added approximately 2 FTEs as a result of Local Law 84 and Seattle's benchmarking ordinance. Added six value-added resellers to the company's network, enabling local revenue to contractors and consultants
- “The majority of building owners do not have visibility to the energy performance of their portfolios, nor do they understand that energy is one of their largest controllable operating expenses. ENERGY STAR is the right first step by bringing awareness to energy usage, however it doesn't give owners actionable information on how to improve. That's why compliance with benchmarking laws is important to us. We tell clients, 'If you have to do it, get something out of it.' We use benchmarking ordinances and ENERGY STAR administration as a catalyst to drive real change, helping owners and managers operate more profitable buildings.”



**Bright Power | [www.brightpower.com](http://www.brightpower.com)**

## Jeffrey Perlman, president and founder

- 4 FTEs added and maintained as a result of Local Law 84 and other Greener, Greater Buildings Plan laws
- “Local Law 84 is a really positive force. The fact that we have competitors that didn't exist before shows that it's growing the market. Our pitch to our customers is you have to do the benchmarking, and ENERGY STAR is good but doesn't give you everything you need, which is where our EnergyScoreCards software comes into play. Our client base in New York City is a lot bigger than it was before Local Law 84 was adopted. It's helped us gain traction, especially in the market rate housing sector, which doesn't have the same targeted incentives as affordable housing. The law has helped us get in the door with owners and offer them something they now need - a 'must have' rather than a 'nice-to-have'.”



**Sustainable Real Estate Solutions | [www.srmnetwork.com](http://www.srmnetwork.com)**

## Brian McCarter, chairman, CEO and founder

- Increased New York City client base by more than 30 percent and hired additional account management staff as a result of Local Law 84
- “Market evidence continues to mount that benchmarking and disclosure regulations are achieving their public policy goal to stimulate commercial building owners and managers to further invest in energy efficiency. An industry best practice is emerging in markets with disclosure regulations, where the first step is a desktop benchmarking analysis including private and public benchmarking database resources, followed by an onsite energy audit to identify energy conservation measures and related key financial metrics for poorly performing buildings.”

10-15

Number of employees hired by Steven Winters Associates, a high-performance building consulting firm, to meet growing client demand for energy efficiency services.

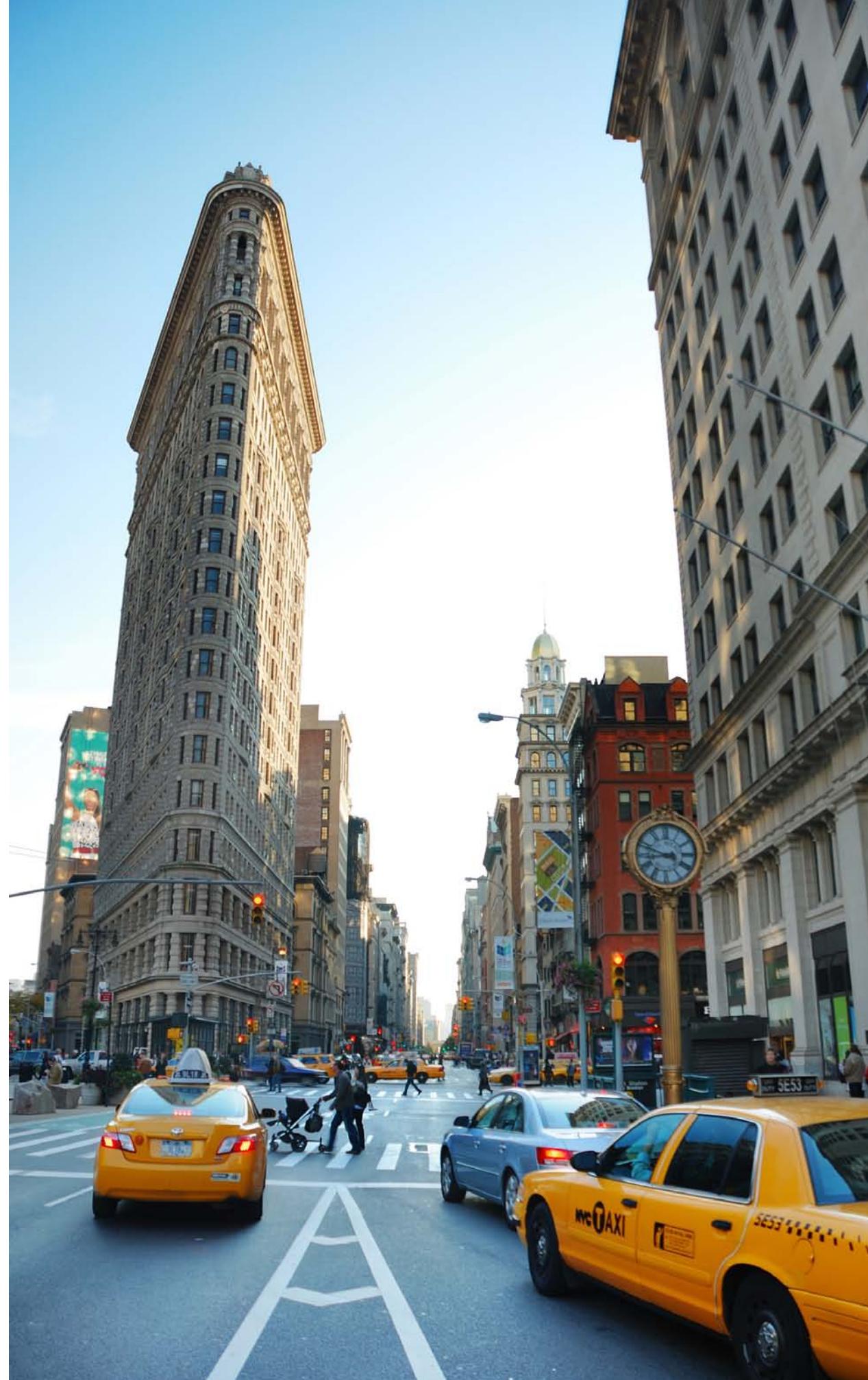
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# Rating America's Buildings

Major cities across the country are moving swiftly to make their buildings more energy transparent.

New York City, San Francisco and the District of Columbia now require the energy performance of large buildings to be rated and publicly disclosed, while other cities and several states require building owners to release performance information to prospective renters, investors and lenders. In all, current transparency requirements could affect more than 4 billion square feet of commercial and multifamily residential floor space annually, more than twice the volume of commercial space that has been LEED certified.

To generate building energy performance metrics, transparency rules leverage the use of the government's ENERGY STAR Portfolio Manager benchmarking tool. This simple and free software rates the energy performance of buildings (a process known as "benchmarking") creating a standard measure of the energy efficiency of a building compared to similar buildings. Today, ENERGY STAR software is the most widely used benchmarking program for commercial buildings in the country.



## Case Study

FS Energy / FirstService Corp. / [www.FirstService.com](http://www.FirstService.com)

For a compelling example of how transparency in New York City's building stock is already changing "business as usual," look no further than FS Energy (FSE).

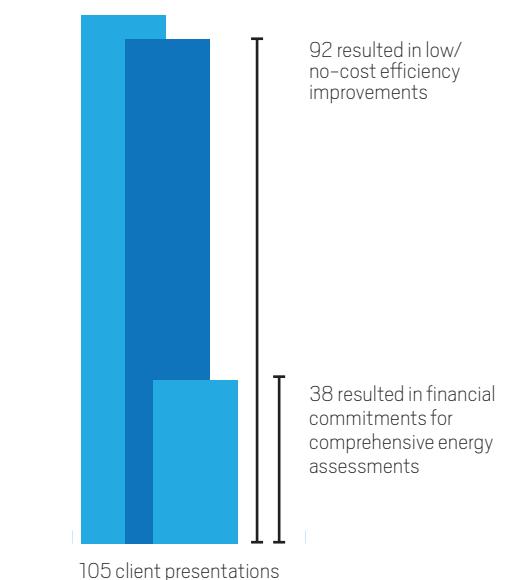
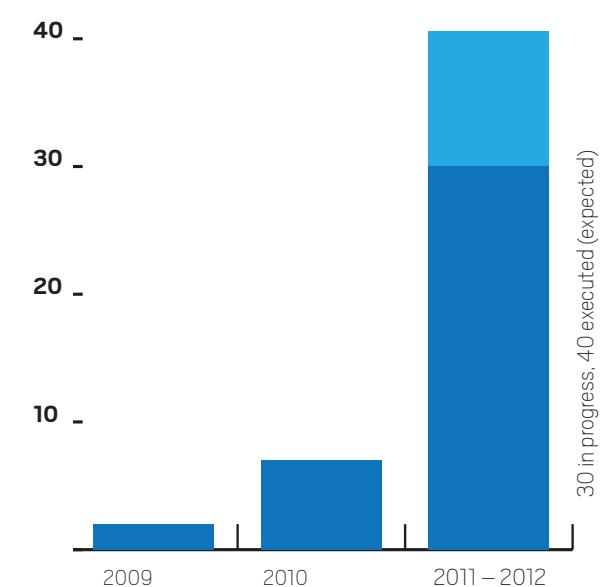
This locally based building energy management company, a division of the real estate services firm FirstService Corp. (NASDAQ:FSRV; TSX: FSV), has grown from less than three employees in 2009 to a staff of more than 10 in 2012. Interest in building energy improvements across the company's managed portfolio of 400 multifamily cooperatives, condominiums and rental properties is skyrocketing. With less than 10 retrofit projects completed from 2009 to 2010, FSE now has 30 retrofit projects in progress and expects to have 40 projects completed by the end of 2012.

The secret to success is benchmarking and transparency, says David Diestel, senior vice president of operations for FirstService Residential Management. FSE last year developed its own energy scorecard, known as the Building Energy Rating Guide (BERG), for all of its New York City properties and watched as client demand for greater energy efficiency began to steadily increase.

As recently as a year ago, FSE's typical clients "did not have any idea of their building's performance or how it performs relative to other properties," Diestel said, making it

nearly impossible to interest them in efficiency improvements. But in 105 client presentations since the company began issuing scorecards in mid-2011, 92 presentations resulted in low/no-cost efficiency projects at a property, and 38 resulted in financial commitments for building energy assessments that could lead to retrofit projects. "Our own benchmarking and energy disclosure efforts in New York, concurrent with the city's Local Law 84, have proved to us that these efforts can help educate and motivate owners to improve performance," Diestel said.

Helping spur this transformation is an innovative financing package offered by FSE where clients pay for energy efficiency upgrades through savings on utility bills. But also at work is New York City's energy transparency law, which gave FSE another selling point to engage clients. According to Diestel, "Having legislative efforts support FSE's goals to reduce carbon and cost in properties increased client awareness and urgency to become educated and consider investing in projects. We fully expect that public disclosure will motivate clients to further improve performance."



David Diestel

# A Foundation for the Future

As the business leaders profiled in this report are making clear, greater building energy transparency is expanding the market for energy efficiency services and creating new jobs.

But as many of them note, benchmarking and transparency are a beginning, not an end. Creating long-term jobs improving the energy efficiency of our buildings will depend on rich innovation and new technologies from entrepreneurs and start-up companies; the availability of capital to perform upgrades; public-private partnerships to train new workers; and a host of other big initiatives and ideas.

By simply adding energy transparency into the real estate marketplace, we can build a solid foundation for that future based on demand, competitiveness and information – allowing a “smarter” America to finally begin tapping into decades of missed opportunities to improve our buildings.



**By the Numbers:** How transparency has transformed business in New York City in the past 18 months

**280**

Number of buildings benchmarked by US Energy Group, a locally based building energy management solutions firm, for compliance with the city's transparency requirements.

# Profiles

**Steven Winters Associates | [www.swinter.com](http://www.swinter.com)**

## **Erica Brabon, senior consultant**

- Added more than 10 people in the New York City market as a result of Local Law 84 and other Greener, Greater Buildings Plan laws
- “People are interested in what the benchmarking number means. Our hook for clients is that you can’t understand your building’s performance until you measure it. Until you understand performance, you can’t make a decision about investments. It’s a matter of explaining to people that it’s not just about compliance, but what you can do to improve. Our business is growing a lot and we anticipate it will continue to grow. We already have more work to do than we have people for.”



**US Energy Group | [www.use-group.com](http://www.use-group.com)**

## **Warren Zaretsky, vice president of marketing**

- Benchmarked approximately 280 buildings for Local Law 84 compliance
- “For years we’ve been telling people, ‘We can save you money,’ and our prospective clients tell us to prove it. It’s much easier to prove if you have a baseline. That’s the starting point. We see Local Law 84 as a great help to our company and the environment.”



**Sustaining Structures | [www.sustainingstructures.com](http://www.sustainingstructures.com)**

## **Theresa Stroisch, CEO, and Kevin Dingle, president**

- 30-50 percent client growth and potential to triple staff over the next few years as a result of the Seattle benchmarking ordinance
- “The Seattle benchmarking ordinance is creating and sustaining real green jobs. Companies like ours are building relationships with clients because compliance is just a starting point. We expect the clients that we have now to be long term clients.” – Theresa Stroisch
- “When an owner or manager sees a benchmarking score might be lower than expected, they’re a little more receptive to improvements to bring the score up, which in turn lowers their utility costs. It makes it ‘real world’ for them when they see the benchmarking numbers.” – Kevin Dingle



**Advanced Energy Innovations | [www.nrgadvocate.com](http://www.nrgadvocate.com)**

## **Ken Patterson, senior energy advocate**

- Increased staff by 50 percent and nearly doubled revenue as a result of the Los Angeles Commercial Building Partnership, a voluntary program to benchmark, audit and improve buildings.
- “Whether it is required or not, benchmarking is always our first step with clients. It’s where we get enough data to see where the next steps are. A lot of owners are just throwing darts when it comes to improving energy performance. Benchmarking tells us where the bullseye is.”

**30%**

Increase in New York City client base at Sustainable Real Estate Solutions, an energy management software provider.

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## About the Institute for Market Transformation

The Institute for Market Transformation (IMT) is a Washington, DC-based nonprofit organization promoting energy efficiency, green building, and environmental protection in the United States and abroad. IMT's work addresses market failures that inhibit investment in energy efficiency and sustainability in the building sector.

## About BuildingRating.org

A joint project of the Institute for Market Transformation and the Natural Resources Defense Council, BuildingRating.org is the world's most comprehensive resource dedicated to energy performance rating and disclosure policies for homes and commercial buildings. BuildingRating.org features an online library of building energy performance rating and disclosure resources, including information on policies, programs, impact analyses, and rating systems and tools. It launched in 2011 to facilitate the sharing of global rating and disclosure policy intelligence and best practices.

[www.imt.org](http://www.imt.org)

[www.buildingrating.org](http://www.buildingrating.org)

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