

I AM CONNECTED

99.99
% SYSTEM
RELIABILITY

2015 ANNUAL REPORT

CONNECTING SAINT PAUL

471
tour visitors

\$12 MILLION
IN LOCAL SPENDING
FOR BIOMASS

NO DEMAND RATE
INCREASE IN
5 YEARS

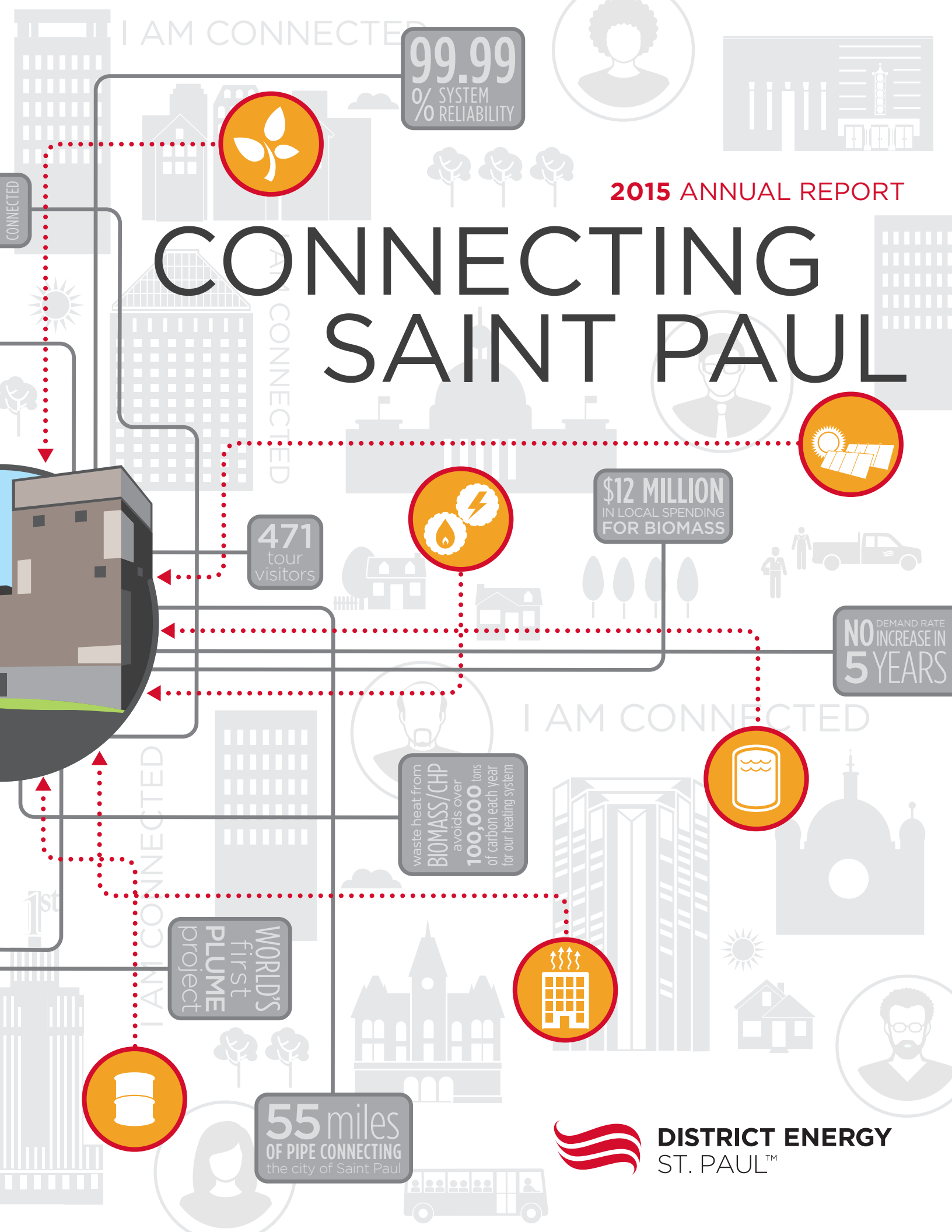
waste heat from
BIOMASS/CHP
avoids over
100,000 tons
of carbon each year
for our heating system

WORLD'S
first
PLUME
project

55 miles
OF PIPE CONNECTING
the city of Saint Paul



DISTRICT ENERGY
ST. PAUL™





Mayor Chris Coleman and Ken Smith connect at the World's Largest Game of Catch.

It is often said that Saint Paul is a big small town. With almost 300,000 residents and hundreds of businesses, it doesn't feel small to everyone.

Yet, as you become more familiar with the city there is something about the connectedness and interdependency of the people that makes it feel more close-knit. Just as important as our interwoven past is how we are building the future of this city together. When the Saints needed a new home, we came together to support bringing CHS Field to Lowertown. It was more than a campaign for a sports facility, it was a chance to create more energy and more activity in downtown. A place for youth leagues to play games under the same lights as the players they emulate. And a great new music venue for the growing number of people living in and visiting downtown. As a community, we saw the tremendous opportunity to connect through this project and this place. Similarly, our community came together to help Catholic Charities build a much-needed new home for a population that needs better resources. Support came from every sector of our city, as we collectively

realized that this was the right thing to do and good for Saint Paul. These are just two examples of the change underway in Saint Paul. This change, this growth, is part of our community coming together to shape a bright future. Yet, even as it grows, our connections to one another are also growing stronger, reinforcing the feeling of Saint Paul being a big small town.

At District Energy St. Paul our work emphasizes our connectedness to the community. There are 55 miles of pipe that make up our city infrastructure. This connects more than 200 buildings to our heating and cooling system. Through this infrastructure and our daily interactions we are connected to our customers and their need for reliable and cost-effective energy. This connects the people who live, work, and play in downtown Saint Paul to the state's highest percentage of renewable heating through biomass-fired combined heat and power. This connects award-winning restaurants, major and minor league sports, internationally recognized arts programming, students, and Fortune 500 businesses to the country's largest solar hot water installation. And starting this past November, this has connected people around Minnesota to the world's first Plume Project, a unique display of lighting, projection, and animation connecting art and science into a mesmerizing experience.

As the hub of these connections, the staff at District Energy takes pride in being the community energy provider and the role they play in building a strong business and social compact within the city. We are grateful for our long-standing customers that highly recommend our services to the new businesses and buildings emerging as Saint Paul continues to grow. We celebrate the partnerships with business, government, and non-profits that have allowed us to be a part of important state-wide education programs and to launch the Saint Paul EcoDistrict. Without our connections, we wouldn't be able to see our system grow, while still finding ways to use less energy and taking strides to eliminate coal from our system. District Energy relies on our customers, our supporters, and our partners, and we commend them for all they do to keep Saint Paul growing and thriving. We are grateful to be an integral part of these community networks, and we are glad to share our 2015 stories with you.

Ken Smith
President and CEO

Mark Rancone
Board Chair

COOL SAVINGS

By most accounts this past summer was one of the best. Beyond enjoying the incredible weather, the mild temperatures and our latest system optimization efforts delivered savings to District Energy St. Paul cooling customers.

Customers benefited from a chilled water rate that was 10% below the predicted rate set at the beginning of the fiscal year. Over 55% of that savings was achieved through system efficiencies and optimization. Our team took into account the lower-than-average heat index to modify our daily operational procedures to achieve the greatest efficiencies and cost savings. Our cooling operations use two primary chilled water plants, the plant on Kellogg Boulevard and the satellite plant on 10th Street. Having diverse assets allows us to balance the chilled water production across multiple chillers, utilizing the most efficient equipment first, which helps to avoid setting high electricity demand peaks. With few extremely warm days this past summer, a higher percentage of our customer's chilled water demand was able to be serviced from the thermal storage tanks, in part



Our team works to optimize the system

because of our operational diligence and planning for production and dispatch. Additional efficiencies were gained by keeping the cooling tower water temps as low as possible, which is harder to accomplish when the heat index is higher.

Efficiency is key to running our system, so we can save energy and save our customers money. By balancing system assets, optimizing production practices, and responding to day-to-day weather conditions, we had a great cooling season that directly benefitted our customers. Building on our lessons learned in 2015, we count on our team to deliver additional system optimization in the future.

Biomass: A Local Energy Solution

District energy infrastructure helps communities to integrate diverse fuels and energy sources, optimizing the system's environmental profile while maintaining stable rates. For 12 years, District Energy St. Paul has benefited from the waste heat captured from the biomass-fueled combined heat and power (CHP) plant. Why is biomass, or waste wood, so important to our system? Using this renewable fuel reduces our carbon profile, provides a service to local communities, and leverages a Minnesota resource, which displaces fossil fuels and keeps energy investments local. Last year, the use of biomass kept \$12 million in the local economy.

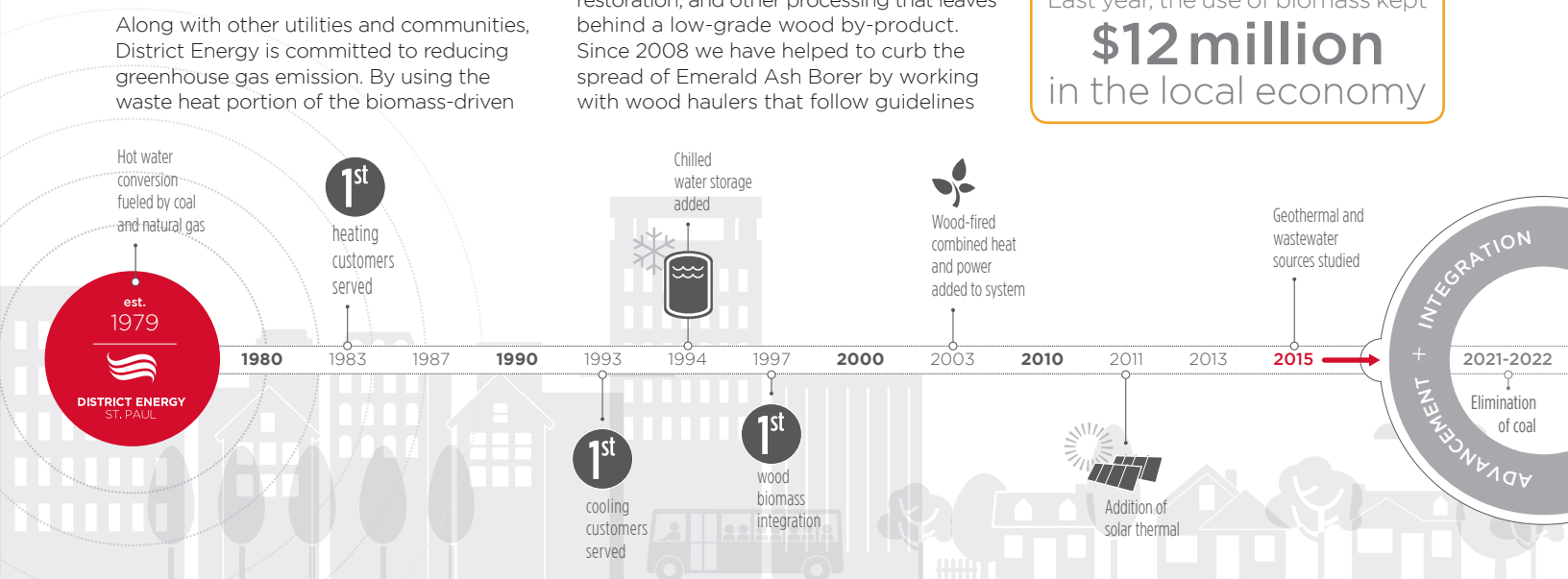
Along with other utilities and communities, District Energy is committed to reducing greenhouse gas emission. By using the waste heat portion of the biomass-driven

CHP, our heating network avoids over 100,000 tons of carbon each year. The Environmental Protection Agency has recently been studying the carbon profile of energy from biomass, and continues to support the use of recovered wood waste as a carbon-free fuel and a strong alternative to fossil fuel usage.

This approach to utilizing wood waste is also important for Minnesota communities. Our affiliate, Environmental Wood Supply, works with cities, counties, private land owners, and businesses who need help dealing with storm-damaged or compromised trees, in addition to waste stream challenges from tree trimming, residential waste, habitat restoration, and other processing that leaves behind a low-grade wood by-product. Since 2008 we have helped to curb the spread of Emerald Ash Borer by working with wood haulers that follow guidelines

for species containment. We provide an efficient process for managing these wood waste streams, with the additional benefit of converting it to a renewable energy resource. In areas without this alternative, these wood residues can often be open-burned, causing local air quality issues and missing the opportunity to convert this to usable energy. Biomass plays an important part of maintaining our cost competitiveness, our resilience to volatile fuel markets, our low carbon profile, and our ability to leverage the high-efficiency energy capture of CHP. We are proud to be part of providing a local, renewable energy source to Saint Paul.

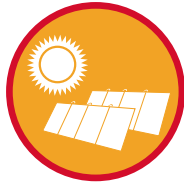
Last year, the use of biomass kept **\$12 million** in the local economy



306,735 meals served by the Dorothy Day Center.

Visit **SAINT PAUL**
Official Convention & Visitors Bureau

The City of Saint Paul committed to reducing greenhouse gas emissions through the Compact of Mayors Milestones.



CATHOLIC CHARITIES
of St. Paul and Minneapolis

The world's first Plume Project transformed the Saint Paul skyline.



SAINT PAUL RIVERFRONT CORPORATION

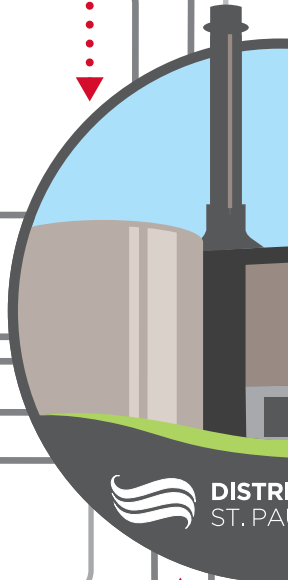
40,000 guests attended Union Depot's holiday events donating **\$23,800** and **1.5 tons** of canned food to local organizations.

GREAT WATERS
BREWING COMPANY

17,000 gallons of beer brewed at Great Waters Brewing Company.

LANDMARK CENTER

UNION DEPOT
ST. PAUL, MINNESOTA



Neighborhood House

137 youth and adults pursued their dream of attending college with the help of Neighborhood House.

RAMSEY COUNTY

Sustainability learning adventure in the heart of downtown Saint Paul.



Saints
ST. PAUL

Fans enjoyed **32,757** quarter pound hot dogs at CHS Field.

HealthEast

Ramsey County's recycling program helped the Saint Paul Hotel to divert **600,000** pounds of food waste to compost.



Xcel Energy Center

ARE YOU CONNECTED?

Being a District Energy St. Paul customer means that you are connected to reliable services, competitive rates, and innovative energy services. You are a part of a community energy system, connecting you to many great organizations and incredible activities happening in the city. Our services are an integral part of Saint Paul, contributing to the vitality of the city, and here to serve you and your network.



Teams and fans from around the world competed in the Roller Derby International Championships at the Roy Wilkins Auditorium.

the Legendary
ROY WILKINS
AUDITORIUM

bedlam
LOWERTOWN



ALLEGRA
DOWNTOWN SAINT PAUL
image360
Graphics • Signage • Displays

DISTRICT ENERGY
ST. PAUL

SAINT PAUL
RIVERCENTRE

PARK SQUARE
THEATRE

2.1M people attended **361** events at the Xcel Energy Center, Saint Paul RiverCentre, and Legendary Roy Wilkins Auditorium.

SR@CC
SAINT PAUL AREA
CHAMBER OF COMMERCE

34,000 teens from MN, WI, and IA engaged in the educational programming at the Park Square Theatre.



Landmark Jewelers

Science Museum
of Minnesota

186,788 visitors saw the world premiere of the Space exhibition at the Science Museum of Minnesota.



100 Central High School students toured the Saint Paul EcoDistrict

SAINT PAUL ECODISTRICT

District Energy has a longstanding commitment to education and to bettering our environment.

Over the years we have hosted thousands of visitors from around the globe at our facilities to learn about our community energy system. The challenge for us was accommodating the volume of interest and finding the right approach to convey complicated technical concepts to a broad range of learners. The solution came from reaching beyond our own facilities to develop the Saint Paul EcoDistrict as a unique partnership with our neighbors. The Science Museum of Minnesota, Saint Paul RiverCentre and Xcel Energy Center, and the George Latimer Central Library have been working hard to make their facilities more efficient and to elevate their

commitments to sustainability. Through the support and leadership of the City of Saint Paul and Xcel Energy, our little corner of downtown Saint Paul quickly became a showcase where the public could experience innovative technologies and best environmental practices for facility and business operations. Last spring we worked together with these partners, Xcel Energy and Visit Saint Paul to launch a website to share our success stories, educate the public about how these solutions work, and guide folks through a walking tour of the EcoDistrict.

Together, the EcoDistrict partners are working toward four key principles; education, engagement, influence, and innovation. We are currently working with Climate Generation: A Will Steger Legacy in an effort to cater the website

content and field trip experience to school age groups and educators. Our current engagement efforts are focused on how to bring people to the EcoDistrict, which traditionally means creating fun experiences. This started with the Plume Project this winter and will continue through the River Balcony outreach and other community engagement. We know that as our audience and support network grows, we will have an immense opportunity to influence sustainability, expand our partnerships, and further Saint Paul's leadership and influence in sustainability and education. We are so proud of what these partnerships have created together, and we know that we have endless potential to connect our customers and the community to something extraordinary.

The World's First Plume Project

Launched in November, the world's first Plume Project consisted of three temporary public art spectacles that transformed the District Energy St. Paul steam plume and the Saint Paul skyline.

Why light the plume? We have been asked this question many times over the last year. Despite our success with tours and education partnerships, there are still lots of folks who live and work in Saint Paul that do not understand our energy system. This is when we realized that we needed a partnership that could find a connection and draw people into their personal relationship with energy systems. Through the matchmaking of Public Art Saint Paul, Works Progress, and the City Art Collaboratory, we were introduced to the Plume Project artists who developed this amazing idea to light the plume.

Each project in the series was designed by an individual artist from the Plume Project team. Emily Stover enlisted local poets to create a voice for the plume,

prompting citizens to think about how we interact with our energy systems. Aaron Dysart created a lighting interpretation of activity on the surface of the sun, through data provided by the NASA Solar Dynamic Observatory and Stanford University. As spots and storms ebb and flow on the sun, color-changing flood lights inside the steam plume continuously changed. Asia Ward showcased drawings and photos submitted by the public, on the topic of positive energy. During the Winter Carnival these drawings were projected onto the plume, engaging contributors and visitors in our positive, community energy story. The projects were made possible through the Knight Foundation Arts Challenge and matching funds from District Energy St. Paul, Ever-Green Energy, Blue Cross Blue Shield, Saint Paul Riverfront Corporation, and Saint Paul College. We can't think of a more amazing way to connect people with our community energy story, and we have tremendous gratitude for the creativity and determination of the Plume Project artists.

Light, coloring, animation, and poetry combined to create a science-meets-art collaboration unlike any other.



Photo credit: Ryan Siverson

Rates and Unit Sales

Year-End September 30

FY2015

FY2014

FY2013

HEATING SERVICES

Demand rate (\$/kW/mo)	\$ 5.27	\$ 5.27	\$ 5.27
Energy rate (\$/MWh)	\$ 25.59	\$ 25.59	\$ 25.59
Fuel adjustment charge (\$/MWh)	\$ 0.64	\$ 1.98	(\$ 1.17)
Overall rate (\$/MMBtu, 1700 Util hrs)	\$ 18.58	\$ 18.98	\$ 18.05
Demand (kW) - average	171,870	168,845	176,325
Energy sales (MWh) - actual	318,985	369,326	323,853
Heating season degree days	7,449	8,634	7,599
Energy sales (MWh) - normalized	322,000	325,000	321,000

COOLING SERVICES

Demand rate (\$/ton/mo)	\$ 26.69	\$ 26.69	\$ 26.69
Energy rate (\$/ton-hour)	\$ 0.087	\$ 0.087	\$ 0.087
Fuel adjustment charge (\$/ton-hour) ..	\$ 0.008	\$ 0.008	\$ 0.004
Overall rate (\$/ton-hour, 1200 Util hrs) .	\$ 0.362	\$ 0.362	\$ 0.358
Demand (tons) - average	26,672	27,031	27,633
Energy sales (tons-hours) - actual ..	39,588,241	37,696,251	38,613,612
Cooling season degree days	802	761	981

By helping our customers, we help to strengthen and grow Saint Paul, which in turn helps our system to expand and improve its efficiency, which further benefits our customers.

STABLE RATES

It is essential to our customers that District Energy St. Paul services are reliable and affordable.

This year we were pleased to announce that our heating and cooling demand rates remained stable for the fifth consecutive year. Rate stability is a hallmark of our system, and we have been able to avoid demand rate increases in seventeen of our thirty-three years of heating service and eleven of our twenty-four years of cooling service. We recognize that this stability helps to contribute to the economic growth of Saint Paul by helping the city to attract and retain businesses, while we help our customers to thrive in their endeavors.

In recognition of our strong financial practices, diverse customer base, and well-managed assets, this year Standard & Poor's affirmed its rating of A- on the outstanding revenue bonds with a stable outlook. We have achieved this milestone in part because we consistently offer our customers stable rates and efficient energy services. The Standard & Poor's bond ratings gives us access to lower-cost debt for capital projects at a lower expense. As a non-profit utility, all of the financial benefits are returned to our customers.

By helping our customers, we help to strengthen and grow Saint Paul, which in turn helps our system to expand and improve its efficiency, which further benefits our customers. We will continue to do our part to provide a competitive energy choice for Saint Paul businesses and residents.

Revenues and Expenses

Year-End September 30

FY2015

FY2014

FY2013

HEATING SERVICES

OPERATING REVENUES

Net demand revenues	\$ 10,897,611	\$ 10,720,227	\$ 11,211,555
Energy revenues	\$ 8,051,397	\$ 10,183,700	\$ 7,922,819
Other revenues	\$ 1,098,193	\$ 972,757	\$ 950,284
Total operating revenues	\$ 20,047,201	\$ 21,876,684	\$ 20,084,658

OPERATING EXPENSES

Fuel and energy	\$ 8,051,397	\$ 10,183,700	\$ 7,922,819
Non-fuel operating expenses	\$ 7,249,070	\$ 7,411,174	\$ 6,976,824
Total operating expenses	\$ 15,300,467	\$ 17,594,874	\$ 14,899,643
Operating income before depreciation	\$ 4,746,734	\$ 4,281,810	\$ 5,185,015

COOLING SERVICES

OPERATING REVENUES

Net demand revenues	\$ 8,556,951	\$ 8,671,082	\$ 8,869,289
Energy revenues	\$ 3,569,823	\$ 3,656,262	\$ 3,730,937
Other revenues	(\$ 1,935)	\$ 0	\$ 0
Total operating revenues	\$ 12,124,839	\$ 12,327,344	\$ 12,600,226

OPERATING EXPENSES

Fuel and energy	\$ 3,569,823	\$ 3,656,262	\$ 3,730,937
Non-fuel operating expenses	\$ 4,252,684	\$ 4,471,865	\$ 4,248,802
Total operating expenses	\$ 7,822,507	\$ 8,128,127	\$ 7,979,739
Operating income before depreciation	\$ 4,302,332	\$ 4,199,217	\$ 4,620,487

New Home in Saint Paul

In December, we made a historic move to the **Jemne Building in downtown Saint Paul**. This move allowed us to strengthen our connection to Saint Paul and improve a historic building within steps of the Nyman Center plant operations and offices on Kellogg Boulevard.

Our team will continue to have a presence in the Nyman Center, however, this new space creates a permanent home for our growing staff, working to advance District Energy St. Paul and grow its affiliate, Ever-Green Energy.

Considering the Saint Paul trend of reimagining existing buildings, we are especially excited to be able to demonstrate how to optimize district heating and cooling connections in one of the historic gems in the city. We will continue to work with our partner LHB to monitor and improve building operations through the B3 Sustainable Building 2030 (SB 2030) Energy Standard. In addition to our energy efficiency efforts, we have also expanded our sustainable practices. We went to great lengths to repurpose materials and fixtures in our move and remodel. The building also features low-flow water fixtures, two electric vehicle charging stations, and a new recycling, composting, and procurement program. We are joining a distinguished list of sustainable businesses in Saint Paul, and we hope our efforts will inspire more of our customers and neighbors to explore similar sustainability initiatives.

The Jemne Building historically served as a place for social and intellectual discourse, initially designed and constructed to be the home for the Women's City Club. We have designed the space to carry forward this civic partnership. We will use our new home to provide training and education to our visitors and partners, as well as hosting dynamic dialogue with community organizations, city stakeholders, and residents. We still have lots of work to do to ready the building for visitors and expect to offer opportunities to tour the facility starting in late spring. We look forward to connecting with you in our new home at 305 St. Peter Street.



BOARD OF DIRECTORS

Mark Rancone, Chairperson
Vice President, Roseville Properties Management Company

Rassoul Dastmozd, PhD
President, Saint Paul College
Medium-sized customer representative

Patrick Hamilton
Director of Global Change Initiatives, Science Museum of Minnesota
Small-sized customer representative

Kim Sorbel
Director, Operations-Patient Services, United Hospital
Large-sized customer representative

Kristina Taylor
Vice-President of Community Relations, Ecolab

David Ybarra
President, Minnesota Pipe Trades Association

Patricia Wolf
President, Commercial Real Estate Services

Ken Peterson
Commissioner, Minnesota Department of Labor and Industry

Ken Smith, Ex Officio
President & CEO, District Energy St. Paul

Board Retirement
District Energy St. Paul would like to thank James Pederson, former vice chairperson for our Board of Directors for his many years of service, advocacy, and leadership. Pederson retired from the board in 2015, having served for 13 years.