



2016 ANNUAL REPORT

# WE'RE CONNECTED



**DISTRICT ENERGY**  
ST. PAUL™

“The people inside our stellar customer organizations are more than the people we provide service to, they are our partners.”

- Ken Smith, President and CEO, District Energy St. Paul



Saint Paul is a beautiful city with a rich history. Every year I spend with District Energy St. Paul, I become more enamored with this community and its culture. Through partnership, public and private investment, hard work, and perseverance, downtown Saint Paul is experiencing a resurgence with new development, great restaurants, more residents, and most importantly more jobs and opportunities for the people who live and work here. As a non-profit, community energy system serving downtown, we are proud that our long-standing and new customers are playing a major role in this renaissance. The people inside our stellar customer organizations are more than people we provide service to, they are our partners. They are the people of this city

that have helped to make Saint Paul the gem that it is, and they are striving hard to make it even better.

This summer, we were proud to show off our hometown and our system when we hosted the International District Energy Association conference at the Saint Paul RiverCentre. Many of our system peers and industry experts from around the world toured our facilities, met our team members, and talked with local partners about how our community is addressing our energy future together. At the conference, Saint Paul was recognized by the United Nations Environmental Programme for advancing the use of district energy to increase energy efficiency and curb carbon emissions.

While the international attention was exciting, as always, our team was hard at work keeping our system reliable, efficient, and cost-effective. This year we accomplished some of our largest distribution projects to upgrade our connections to our customers and expand our

heating and cooling services to new customers like the new Catholic Charities' Higher Ground project. In 2016 we challenged ourselves to further optimize our plant operations to reduce energy use and cost to our customers. The result was a significant rebate to our cooling customers. We continue our efforts to sunset the use of coal by developing plans for alternative energy sources that will help make us more resilient and sustainable.

When I started at the company in 2006, I was fortunate to have Anders Rydaker take me under his wing and introduce me to his deep connections across the Twin Cities region. Over the years, I have collaborated with many of these folks and met many more. I've had the privilege of serving with a great board of directors and staff at the Saint Paul Area Chamber of Commerce, and to partner with the City of Saint Paul, Ramsey County, the Saint Paul Port Authority, and the Greater Saint Paul Building Owners and Managers Association to name just a few. I've worked with other

local leaders on energy and development and been proud to support community partners addressing equity, education, homelessness, and poverty. This past year I was also proud to deepen my personal roots in Saint Paul when my wife and I became downtown residents.

So, while my connections to this city started with strong business connections, my personal connection to the heart and soul of Saint Paul is stronger than ever. I am proud to greet my neighbors on the street, because I know that our company is providing them with great services in their homes, in their work places, at restaurants, Wild and Saints games, and theater productions. As always, I encourage you to reach out to me or anyone on our staff with your questions and suggestions. Thank you for helping us to have a great 2016.

Ken Smith  
President and CEO



Back in 1984, Mayor George Latimer convinced me and my dad to utilize District Energy as the main heat source for the new Amhoist (now Landmark Tower) building we were developing. It was my first connection to District Energy and would be the first building to be designed to solely rely on District Energy for heating. From there, I was able to apply my experience on the Saint Paul Building Owners and Managers Association Board of Directors, and my experience with Amhoist Tower, as a customer representative to the board of the newly formed

district cooling business in the early 90s. As a long-standing board member, and serving the last two as chair, I have been fortunate to be part of the innovative and progressive expansion of the organization's mission. The company continues to find innovative and progressive ways to keep costs competitive, services reliable, and deliver advanced solutions to our customers. These are key priorities to our customers and to all board members who represent you. Keeping the system performing above expectation and keeping customers satisfied

is directly attributable to the organization's world renowned staff and leadership. Ken's letter eloquently summarizes our history and recent accomplishments, making 2016 yet another banner year for District Energy and Saint Paul - a year that we as board members and you as customers should share with pride.

Mark Rancone  
Board Chair



Photo credit: Bruce Kluckhohn, Minnesota Wild

## BUILDING PARTNERSHIPS THROUGH SUSTAINABILITY

From Minnesota Wild games to the Prince Tribute Concert and from the Land O' Lakes Kennel Club Dog Show to the Star of the North Dental Convention, the campus of Xcel Energy Center, Saint Paul RiverCentre, and Roy Wilkins Auditorium offers something of interest for everybody. Many facilities can lay claim to exciting events, but one of the things that sets this Saint Paul destination apart is its ambitious sustainability program.

Saint Paul RiverCentre and Xcel Energy Center's environmental goals are aligned with the operating philosophy of District Energy. Jim Ibister, General Manager, Saint Paul RiverCentre and Vice President of Facility Administration for the Minnesota Wild, encourages

developers and building managers to think creatively about their relationships with service providers. He shared, "Our relationship with District Energy started out simply as a client and provider relationship. As time progressed, and we learned that both organizations were committed to sustainability, we became partners on many projects that served our communities and the environment."

District Energy provides the complex with heating, cooling, and domestic hot water. In addition to District Energy's environmental advantages, being connected means the facility's staff does not have to manage the assets, work, and worry of energy production.

The reliability of District Energy helps to assure everyone that when there is an arena full of cheering Wild fans, the building will have the heating and cooling required. In addition to heating and cooling, District Energy provides low-grade heat for a snow melt system to some of the sidewalks around the complex. Snow melt reduces the amount of salt and labor needed for snow removal, which helps to run an efficient operation, while reducing the amount of chemicals dispersed on the sidewalks.

When these facilities began working on their sustainability goals, they were searching for ways to diversify their energy efficiency portfolio to help reduce their carbon footprint.

This led to the opportunity to partner with District Energy to build the nation's largest solar thermal energy system. The organizations also partnered to develop the Saint Paul EcoDistrict sustainability education experience and they collaborate on speaking engagements and events to share their environmental achievements. Ibister adds, "Today, our working relationship has extended far beyond the traditional customer relationship where it started."

At District Energy, we are proud to support the great entertainment, operations, and environmental mission of Saint Paul RiverCentre and Xcel Energy Center. 🌱

“Today, our working relationship has extended far beyond the traditional customer relationship...”

- Jim Ibister, General Manager, Saint Paul RiverCentre and Vice President of Facility Administration for the Minnesota Wild



### Awards and Recognition

The dedicated team at District Energy works to deliver exceptional service to our customers and operate with the highest standards to advance our organization's mission. This year our work was recognized by a number of organizations.

**The Saint Paul EcoDistrict** was recognized by two organizations this year. The Sustainable Saint Paul Award Program recognized the collaboration of the project partners with its Sustainable Partnership Award. Environmental Initiative recognized the initiative as one of three finalists for their Environmental Education Award.

Former Director and CEO, **Anders Rydaker** was recognized for his monumental contribution to our industry with the Life Member Recognition from the International District Energy Association.

**The City of Saint Paul** was recognized by the United Nations as one of three Champion Cities in the United States for their commitment to developing and sharing district energy policies with other cities and working cooperatively toward a cleaner, more resilient energy future.

**District Energy St. Paul** received recognition for system growth and retention with the Silver Space Award (buildings) and the Bronze Space Award (total area) from the International District Energy Association.

“Our District Energy interface is so much easier to operate that it frees up a tremendous amount of time and helps to reduce our staffing needs in the engineering department.”

- Jeff Osberg, Chief Engineer, Ordway Center for the Performing Arts



## PATRON COMFORT MADE EASY



Photo credit: Rich Ryan Photography

and the toilets can flush for the 300,000 patrons that attend over 220 performances and events each year. Considering the daily complications that can arise from live theater and concerts, Jeff appreciates that District Energy helps to make his job easier while keeping costs down.

Jeff has been responsible for heating and cooling buildings that utilize on-site energy generation, and he says that, “It is a treat to not have to deal with boilers, chemicals, fuel, and all the aspects that go along with having your own heating and cooling systems. Our District Energy interface is so much easier to operate that it frees up a tremendous amount of time and helps to reduce our staffing needs in the engineering department.” Jeff also attributes cost savings to the direct support that he receives from the District Energy team. While the engineering staff is continuously monitoring

the building systems, on the occasions when the system is not running optimally a call from District Energy has helped to identify issues before they became costly.

With the theater’s busy schedule of rehearsals, shows, and events, heating and cooling reliability is essential. Jeff emphasizes, “The reliability of District Energy is phenomenal, which you don’t get with your own system. If your system is down, you are down. There hasn’t been a day when we haven’t had the service.”

Jeff and his colleagues at the Ordway describe their District Energy service as a partnership. Since the Ordway opened more than 30 years ago, District Energy has provided the theater with an energy solution that is easy, economical, and reliable, and in 1991 they became the first customer to sign a contract for cooling services. At District Energy we are proud to be connected to a Minnesota institution that provides high quality entertainment and educational opportunities for our community. 🏠



Photo credit: Mike Krivit

Jeff Osberg will never take center stage, but he has played a vital supporting role at the Ordway Center for the Performing Arts for 22 years. As the chief engineer, Jeff and his team are responsible for everything from making sure that the stage house fly system is functioning and that priceless instruments are properly humidified to making certain that the front doors can open

## Vibrant Saint Paul

Landmark Center and the Saint Paul Saints connect the community through their engaging events.

Photo left: Landmark Center’s Mid-Autumn Moon Festival. Credit: Minnesota Landmarks.

Photo right: The Saint Paul Saint’s Mudonna visits the RiverCentre’s solar thermal installation.



## COLLABORATING FOR A FIRST CLASS EXPERIENCE

The Custom House brings together architectural and civic history, with exciting newly designed spaces for upscale market-rate apartments and a Hyatt Place hotel. The 1930s vintage art deco building, which originally served as Minnesota’s only Federal Building and Saint Paul’s Main Post Office, has been completely transformed. The renovation highlights many of the building’s historic features which were restored during construction, including the beautiful lobby space that is a grand entrance for residents and hotel guests. Custom House offers spectacular views of the Mississippi River and Saint Paul’s downtown as well as market-

leading residential and hotel amenities.

This is the first project in downtown Saint Paul for the Exeter Group. District Energy was happy to contribute to this exciting project, providing Custom House with heating, cooling, domestic hot water, and snow melt services. Herb Tousley, chief development manager for the Exeter Group said, “We have really enjoyed working with District Energy. There are many benefits that come with using their services including 24/7/365 heating and cooling, which helps to eliminate heating and cooling issues in the shoulder seasons. By connecting to District Energy



Custom House Grand Opening. Photo credit: Mike Krivit

we avoided the need for the large unsightly HVAC plants, required by a more traditional cooling system, cluttering up our rooftop.” The Custom House developers not only spectacularly repurposed this historic building, but created another connection

between people living and visiting downtown Saint Paul and the Mississippi River. These connections contribute so much to the vitality of Saint Paul. District Energy looks forward to continued collaboration with the Exeter Group and service to this amazing building. 🏠

“By connecting to District Energy we avoided the need for the large unsightly HVAC plants, required by a more traditional cooling system, cluttering up our rooftop.”

- Herb Tousley, Chief Development Manager, Exeter Group

## UBS PLAZA 444 CEDAR STREET | ST. PAUL, MN



## CUSTOMER SERVICE ADDS VALUE



Photo credit: Mike Krivit

The views of Saint Paul from UBS Plaza are stunning from the Mississippi River to the Minnesota State Capitol. The building is a large office tower and offers companies like UBS Financial Services, TKDA, West Academic, and Johnson Becker

some of the highest quality office space in downtown. UBS Plaza is centrally located, close to the Green Line and surrounded by great amenities including restaurants, shopping, and housing.

Maureen Burns has managed a wide variety of real estate products including office, medical, retail, and industrial properties. When she joined UBS Plaza as the property manager, it was her first experience with district heating and

cooling services. For the companies that rent office space at UBS Plaza, Maureen depends on the high reliability, price, and efficiency that District Energy delivers, but has found the greatest value in the personalized customer service that the District Energy team provides.

Maureen said, “Any time I call with a question or I am looking for specific data, the customer service team is responsive to my requests and assists with finding solutions.” In addition to responding to questions, Maureen has received calls from District Energy if the building’s energy trends vary from month to month. “The level of attention we receive at our building truly exceeds our expectations of service from a utility provider. On more than one occasion, they have saved us money.” 🏠

# HISTORIC DEPOT CONNECTS COMMUNITY



Photo credit: Ramsey County Regional Railroad Authority



The Ramsey County Regional Railroad Authority's purchase, renovation, and restoration of the massive Union Depot offered the construction and conservator teams many challenges. The challenges required a design that balanced historic elements of a once fully built-out train station with the future vision of a building to be used as an event center, a community gathering place, and a multi-modal transportation hub.

The renovation work followed a thorough investigation of the structural elements of the building, and the electrical and mechanical systems. A completely new heating and cooling system was designed and installed for the public space. Efficiency of operations and comfort for passengers and visitors during the seasonal temperature variations of more than 100 degrees was and is of the highest priority. Events at Union Depot range from yoga classes in the football-field-sized waiting room to business meetings and celebrations in

the Red Cap Room to weddings and large public events such as Doggie Depot and the Annual Bake Sale.

During large events in any season the challenge of heating or cooling a space as large as Union Depot is significant. The building has multiple entry points, traditional brick exterior, ceiling heights of 40 feet, generally open floor plans, and an elevated, bridge-like concourse and waiting room. Welcoming 15 people to play giant board games or a few thousand people (and their four-legged companions) while keeping everyone comfortable is possible with District Energy's reliable, consistent heating and cooling.

The number of travelers through and visitors to Union Depot grows each year. The connection to District Energy's hot and cold water system allows the facility to continuously meet the challenges of variable demand - from large events to a few passengers throughout the course of any one day. 🚶

## Rates and Unit Sales

Year-End September 30      FY2016      FY2015      FY2014

### 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) .....	(\$ 4.36)	\$ 0.64	\$ 1.98
Overall rate (\$/MMBtu, 1700 Util hrs) .....	\$ 17.12	\$ 18.58	\$ 18.98
Demand (kW) - average .....	170,241	171,870	168,845
Energy sales (MWh) - actual .....	283,259	318,958	369,326
Heating season degree days .....	6,252	7,449	8,634
Energy sales (MWh) - normalized .....	336,000	322,000	325,000

### 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) .....	(\$ 0.003)	\$ 0.008	\$ 0.008
Overall rate (\$/ton-hour, 1200 Util hrs) ..	\$ 0.351	\$ 0.362	\$ 0.362
Demand (tons) - average .....	26,518	26,672	27,031
Energy sales (tons-hours) - actual ..	41,974,384	39,588,241	37,696,251
Cooling season degree days .....	969	802	761

## Revenues and Expenses

Year-End September 30      FY2016      FY2015      FY2014

### HEATING SERVICES

#### OPERATING REVENUES

Net demand revenues .....	\$ 10,784,394	\$ 10,897,611	\$ 10,720,227
Energy revenues .....	\$ 6,193,191	\$ 8,051,397	\$ 10,183,700
Other revenues .....	\$ 941,529	\$ 1,098,193	\$ 972,757
Total operating revenues .....	\$ 17,919,114	\$ 20,047,201	\$ 21,876,684

#### OPERATING EXPENSES

Fuel and energy .....	\$ 6,193,191	\$ 8,051,397	\$ 10,183,700
Non-fuel operating expenses .....	\$ 7,101,545	\$ 7,249,070	\$ 7,411,174
Total operating expenses .....	\$ 13,294,736	\$ 15,300,467	\$ 17,594,874

<b>Operating income before depreciation .....</b>	<b>\$ 4,624,378</b>	<b>\$ 4,746,734</b>	<b>\$ 4,281,810</b>
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### COOLING SERVICES

#### OPERATING REVENUES

Net demand revenues .....	\$ 8,504,460	\$ 8,556,951	\$ 8,671,082
Energy revenues .....	\$ 3,763,576	\$ 3,569,823	\$ 3,656,262
Other revenues .....	(\$ 2,043)	(\$ 1,935)	\$ 0
Total operating revenues .....	\$ 12,265,993	\$ 12,124,839	\$ 12,327,344

#### OPERATING EXPENSES

Fuel and energy .....	\$ 3,763,576	\$ 3,569,823	\$ 3,656,262
Non-fuel operating expenses .....	\$ 4,997,124	\$ 4,252,684	\$ 4,471,865
Total operating expenses .....	\$ 8,760,700	\$ 7,822,507	\$ 8,128,127

<b>Operating income before depreciation .....</b>	<b>\$ 3,505,293</b>	<b>\$ 4,302,332</b>	<b>\$ 4,199,217</b>
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## SUN SPOT ON THE RIVER BALCONY

In the fall, District Energy hosted a public art installation in the heart of the Saint Paul EcoDistrict that utilized solar data to light up the night. Sun Spot demonstrated how renewable energy can be integrated into the art and vibrancy of a city, while reminding us of the dynamic properties of the sun.

Sun Spot was created by Minnesota artists Aaron Dysart and Alyssa Baguss. The 15 foot long bench was connected to a meter that collected solar data throughout the day. At night the bench lit up with a color changing light show that replicated the solar activity from the previous 12 hours.

Shaped like a bend in the Mississippi River flowing through Saint Paul, visitors could enjoy Sun Spot overlooking the river between District Energy and the Science Museum of Minnesota.

The bench was installed for the River Balcony Prototyping Festival and remained in place for six weeks. During the festival, Aaron and Alyssa talked with visitors and facilitated hands-on solar education activities including magnifying the sun's rays to burn paper and donning eclipse glasses to view the sun. The Sun Spot project was designed to bring together people, the river, the river balcony, and the solar energy that is essential to all of us. 🌞



Photo credit: Aaron Dysart

## Optimization Leads to Savings



Every year the District Energy team works hard to find ways to operate more efficiently so we can save energy and money for our customers. In 2016, we were able to offer our customers a cooling rebate as a result of optimizing our cooling equipment and maximizing our chilled water storage. This success was also a result of our customers improving their Delta T performance for cooling. It is great to see the results from building engineers honing in on best practices for controls, setpoints, and working with our customer service team to monitor and manage usage information.

Additional system improvement projects have focused on using our information technology and communication platforms to better understand energy use and develop submetering solutions for our customers. We are now testing two submetering solutions with multi-family residential customers, with the hope that we can roll this out to more customers in the coming years. Submetering helps building managers and tenants have a better understanding of energy usage at the unit level, which helps focus and motivate energy conservation efforts. Our customer service team will continue to work with customers to better understand the data and functions of building meters as well as how to utilize our meter output to better monitor energy use in their buildings. We are proud of our track record of constant improvement to keep rates competitive and energy usage optimized. We look forward to continuing this work into 2017. 🌞

“As a non-profit, we appreciate the money we save with District Energy. It is also important for us to know our heating and cooling budget at the beginning of the year. Knowing what we are going to pay each month helps us plan for our sales and fundraising efforts.”

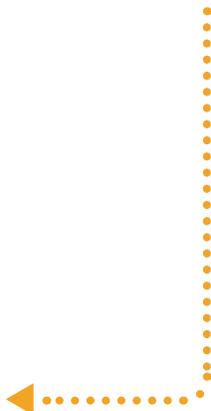
- Chris Sagstetter,  
Chief Financial Officer,  
Ordway Center for the  
Performing Arts

“We don’t have to worry about boilers, chillers, or chemicals. We have a team of people down the street that takes care of all of our heating and cooling needs”

- Ken Wieber, Director of Operations, Saint Paul Hotel



Photo credit: Mike Krivit



## 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*

**Ken Peterson**  
Commissioner, Minnesota Department of Labor and Industry

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

**Kristina Taylor**  
Vice-President of Community Relations, Ecolab

**Patricia Wolf**  
President, Commercial Real Estate Services

**David Ybarra**  
President, Minnesota Pipe Trades Association

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

## EXCEPTIONAL HOSPITALITY, UNMATCHED RELIABILITY

Since 1910, the Saint Paul Hotel has been a premier landmark hotel offering luxurious accommodations, authentic hospitality, and old-world charm. The beautiful event space is an ideal location for weddings, celebrations, and business meetings alike. Out of town guests and locals can enjoy fine dining at the St. Paul Grill and M ST Café as well as the special events hosted by the hotel including jazz festivals, vintage radio show performances, and etiquette lessons.

The hotel’s director of operations, Ken Wieber, is responsible for keeping the busy venue running smoothly. Ken understands energy production and complex mechanical systems from his Navy service on the USS Enterprise and his work as a hotel chief engineer. However, Ken prefers to be out of the energy production business and is happy to leave the heating and cooling of the Saint Paul Hotel to District Energy.

Ken appreciates that he no longer has to be concerned with the tasks of energy production. Ken shared, “We don’t have to worry about boilers, chillers, or chemicals. We have a team of people down the street that takes care of all of our heating and cooling needs.” The District Energy connection requires a smaller mechanical footprint than on-site production and the hotel has made good use of their valuable space with a well-equipped fitness center on the roof and the fantastic M ST Café downstairs.

The Saint Paul Hotel has a long-standing commitment to environmental sustainability. The staff composts or recycles 90% of its waste stream, monitors energy and water use, and serves high tea with the original eco-friendly service ware: silverware, china, and linens. The renewable and efficient energy provided by District Energy fits nicely into the hotel’s sustainability



Photo credit: Mike Krivit

goals. However, it is District Energy’s reliability that helps the hotel to meet their mission of exceptional guest service. “Since we switched to District Energy, we have not had one guest that lacked hot water for a shower. We have unlimited hot water. We would not have that kind of reliability if we were operating our own boilers.”

At District Energy we appreciate that hotel operations require constant heating, cooling, and hot water. We are proud to provide support to the Saint Paul Hotel that provides our community with a unique, luxury hotel experience. 🏠