



## Spotlighting Industry Growth



# District Energy Space '09

*Nearly 70 million  
square feet reported*

# District Energy Space '09

*Dedicated to the growth and utilization of district energy as a means to enhance energy efficiency, provide more sustainable and reliable energy infrastructure, and contribute to improving the global environment.*

## Industry Growth Around the World

The publication of *District Energy Space* has become an annual tradition for the International District Energy Association since 1990. This issue features a compilation of data provided by our members, including the number of buildings and their area in square feet that have been committed or recommitted to district energy service in North America and beyond North America during the calendar year 2009.

Established in 1909, the International District Energy Association (IDEA) serves as a vital communications and information hub for the district energy industry, connecting industry professionals and advancing the technology around the world. With headquarters just outside of Boston, Mass., IDEA comprises over 1,200 district heating and cooling system executives, managers, engineers, consultants and equipment suppliers from 25 countries. IDEA supports the growth and utilization of district energy as a means to conserve fuel, increase energy efficiency and reduce emissions to improve the global environment.

Each year, IDEA asks all of its member systems to provide information on buildings that committed or recommitted to district energy service during the previous calendar year. For

each building, District Energy Space provides the following information:

- Building name and type
- Service provider's name and location
- Building area in square feet (where available)
- Services provided (heating, domestic hot water, laundry, cooling, ice-making, pool warming, etc.)

*District Energy Space* not only enables IDEA to record the year-to-year growth experienced by its member systems, but also can be a valuable marketing asset for your organization. All systems submitting entries will receive an **IDEA Certificate of Participation**. During the IDEA 101st Annual Conference in Indianapolis, Indiana, June 13–16, 2010, IDEA will congratulate and present awards to those systems submitting the greatest amount of total square footage and the greatest number of total buildings for 2009 for both North America and Beyond North America.

*District Energy Space* 2009 and previous issues are available in PDF format by downloading from IDEA's Web site, <http://www.districtenergy.org/district-energy-space>.

## Summary for 2009

District Energy system growth has been good, despite an extremely challenging global economy, but is incrementally lower than last year. Our members reported that 95 customer buildings in North America totaling 27,440,426 sq ft of building space were committed or recommitted to district energy service during 2009. That compares with 126 buildings and 39,897,947 square feet during 2008.

The North American total of 27,440,426 sq ft added to IDEA's running total of square footage of 467,686,922 sq ft committed to North American district energy systems since 1990, brings the current total for North America reported since 1990 to 495,127,348 ft.

IDEA is also pleased to be able to report solid system growth from beyond North America, including our first data from Japan (Minato-Mirai 21). An additional 41,113,744 sq ft and

102 buildings were reported for 2009. That compares with 2,815 buildings and 281,870,939 sq ft during 2008. Details are described at the end of this publication.

## Stand Up and Be Recognized for 2010

Make plans now to photograph and enter your customer buildings that commit or recommit for your district energy service during 2010! The deadline for submittal of buildings for 2010 is **Fri., April 8, 2011**.

Continuing our tradition, during the IDEA 102nd annual conference in Toronto, Ontario, Canada, June 26–29, 2011, IDEA will congratulate and present awards to those systems submitting the greatest amount of total square footage and the greatest number of total buildings for 2010 for both North America and Beyond North America. We look forward to hearing from you!

### 2009 Square Footage Reported\*

Category	North America	Beyond North America
Commercial-Mixed Use	3,336,051	24,818,559
Commercial-Office	8,162,820	2,909,095
Commercial-Retail/Manufacturing	0	0
Commercial-Other	12,000	0
Entertainment, Cultural or Sporting Center	697,933	18,907
Government	4,780,000	0
Hotel	4,326,600	3,497,328
Residential	1,100,872	1,100,872
School, Hospital or Institution	4,993,150	1,740,830
Other	31,000	0
<b>Square Footage Reported 2009</b>	<b>27,440,426</b>	<b>41,113,744</b>

### 2009 Total Reported in North America and Beyond North America

**69,174,170**

\* All entries are newly signed, connected or renewed customers during calendar year 2009, (Renewal = renewed/recommitted to a long-term service agreement of 10 years or greater.)



## Commercial – Mixed Use

### ■ 643 Park Avenue – Seventh Regiment Armory Conservancy

Con Edison Steam Operations  
New York, NY  
185,000 sq ft – heating, domestic hot water



*Seventh Regiment Armory Conservancy*

### ■ Commerce Court, North Tower

Enwave  
Toronto, Ontario, Canada  
238,441 sq ft – heating



*Commerce Court, North Tower*

### ■ Citiscape

Northwind Phoenix  
Phoenix, AZ  
650,000 sq ft – cooling



*Citiscape*

### ■ Gaviidae Common

NRG Energy Center Minneapolis LLC  
Minneapolis, MN  
237,000 sq ft – heating, domestic hot water, kitchen



*East River Science Park*

### ■ Office Building

Veolia North America  
Trigen-Baltimore system  
Baltimore, MD  
660,000 square feet – heating, domestic hot water



*18 York Street*

### ■ Office Building

Veolia North America  
Trigen-Boston system  
Boston, MA  
1,355,610 square feet – heating, cooling, domestic hot water

### ■ 144-146 East 86th Street

Con Edison Steam Operations  
New York, NY  
100,600 square feet – heating

### ■ 130 Cedar Street

Con Edison Steam Operations  
New York, NY  
172,600 square feet – heating, domestic hot water

### ■ 140 West 65th Street

Con Edison Steam Operations  
New York, NY  
11,300 square feet – heating, other

### ■ 185 West Broadway

Con Edison Steam Operations  
New York, NY  
200,000 square feet – heating, domestic hot water, other

### ■ 270 Park Avenue

Con Edison Steam Operations  
New York, NY  
1,351,000 square feet – air conditioning

### ■ 350 East 45th Street (799 First Avenue-UN Plaza)

Con Edison Steam Operations  
New York, NY  
143,000 square feet – heating, domestic hot water, other

### ■ 485 Fifth Avenue

Con Edison Steam Operations  
New York, NY  
216,000 square feet – heating, domestic hot water, other

### ■ 18 York Street

Enwave  
Toronto, Ontario, Canada  
671,786 square feet – cooling

## Commercial – Office

### ■ East River Science Park, Phase 1

Con Edison Steam Operations  
New York, NY  
400,000 square feet – heating, domestic hot water

### ■ 123 Washington Street

Con Edison Steam Operations  
New York, NY  
383,616 square feet – heating, domestic hot water, other

## Commercial Office - cont.

### ■ Wells Fargo Place

Ever-Green Energy  
St. Paul, MN  
620,000 square feet – heating,  
cooling

### ■ Ecolab Corporate Center – Data Center

Ever-Green Energy  
St. Paul, MN  
278,388 square feet – heating,  
domestic hot water, cooling

### ■ Office Building

Veolia North America –  
Trigen-Boston system  
Boston, MA  
793,000 sq ft – heating, domestic  
hot water, process

### ■ Office Building

Veolia North America –  
Trigen-Los Angeles system  
Los Angeles, CA  
780,000 square feet – cooling

### ■ Office Building

Veolia North America –  
Trigen-Los Angeles system  
Los Angeles, CA  
425,000 square feet – heating,  
cooling

### ■ Office Building

Veolia North America –  
Trigen-Oklahoma City system  
Oklahoma City, OK  
189,000 square feet – heating,  
cooling, domestic hot water

### ■ Office Building

Veolia North America –  
Trigen-Oklahoma City system  
Oklahoma City, OK  
292,000 square feet – heating,  
cooling, domestic hot water

### ■ Office Building

Veolia North America –  
Trigen-Tulsa system  
Tulsa, OK  
768,000 square feet – heating,  
cooling, domestic hot water,  
humidification



Wells Fargo Place



Ecolab Corporate Center



TCF Bank Stadium



River Center - St. Paul



River Center - Roy Wilkins Auditorium



Urban Yoga Spa

## Commercial – Other

### ■ Urban Yoga Spa

Seattle Steam  
Seattle, WA  
12,000 square feet – heating

## Entertainment, Cultural or Sporting Center

### ■ River Center – Roy Wilkins Auditorium

Ever-Green Energy  
St. Paul, MN  
153,000 square feet – heating,  
cooling, domestic hot water

### ■ River Center – St. Paul

Ever-Green Energy  
St. Paul, MN  
312,000 square feet – heating,  
cooling, domestic hot water

### ■ TCF Bank Stadium

University of Minnesota, Twin Cities  
Minneapolis, MN  
232,933 square feet – heating,  
cooling, process, kitchen

### Entertainment, Cultural or Sporting Center - cont.

#### ■ Health Club

Veolia North America –  
Trigen-Boston system  
Boston, MA  
10,000 sq ft – heating, domestic  
hot water



Warren Burger Federal Building



Springhill Suites

### Government

#### ■ National Intragency Biodefense Campus

Fort Detrick NIBC CUP, Frederick, MD  
Chevron Energy Solutions  
380,000 square feet—heating,  
cooling, humidification, process,  
refrigeration



Fort Detrick

#### ■ Warren Burger Federal Building – U.S. Courthouse

St. Paul, MN  
Ever-Green Energy  
450,000 square feet – heating,  
cooling, domestic hot water



State Complex

#### ■ City County Complex

Lincoln, NE  
District Energy Corporation  
594,500 square feet – heating,  
cooling, kitchen

#### ■ State Complex

Lincoln, NE  
District Energy Corporation  
737,000 square feet – heating,  
humidification

#### ■ City Hall – 911 Center

Minneapolis, MN  
NRG Energy Center Minneapolis LLC  
1,500 square feet – cooling

#### ■ Government Offices

Boston, MA  
Veolia North America –  
Trigen-Boston system  
1,650,000 square feet – heating,  
domestic hot water

#### ■ Office Building

Cambridge, MA  
Veolia North America –  
Trigen-Cambridge system  
363,000 square feet – heating,  
domestic hot water, kitchen

#### ■ Jail/Prison

Philadelphia, PA  
Veolia North America –  
Trigen-Philadelphia system  
604,000 square feet – heating

### Hotel

#### ■ Springhill Suites

Indianapolis, IN  
Citizens Thermal Energy  
133,000 square feet – heating,  
cooling, domestic hot water

#### ■ Courtyard by Marriott

Indianapolis, IN  
Citizens Thermal Energy  
133,000 square feet – heating,  
cooling, domestic hot water



Courtyard by Marriott

#### ■ Fairfield Inn

Indianapolis, IN  
Citizens Thermal Energy  
10,000 square feet – heating,  
cooling, domestic hot water

#### ■ 485 Fifth Avenue

New York, NY  
Con Edison Steam Operations  
216,000 square feet – heat,  
domestic hot water, other

#### ■ Hotel

Baltimore, MD  
Veolia North America –  
Trigen Baltimore system  
54,800 square feet – heating,  
domestic hot water

#### ■ Hotel

Baltimore, MD  
Veolia North America –  
Trigen Baltimore system  
1,300,000 square feet—heating,  
cooling, domestic hot water

#### ■ Hotel

Boston, MA  
Veolia North America –  
Trigen Boston system  
400,000 square feet – heating,  
domestic hot water



### Hotel - cont.

#### ■ Hotel

Boston, MA  
Veolia North America –  
Trigen Boston system  
880,000 square feet – heating,  
domestic hot water

#### ■ Hotel

Boston, MA  
Veolia North America –  
Trigen Boston system  
250,000 square feet – heating,  
domestic hot water

#### ■ Hotel

Boston, MA  
Veolia North America –  
Trigen Boston system  
950,000 square feet – heating,  
domestic hot water



144-146 East 86th Street



College Park Campus



Lowertown Commons



Riley Hospital – Simon Family Tower

### Residential

#### ■ 144-146 East 86th Street

New York City, NY  
Con Edison Steam Operations  
336,000 square feet – heating,  
domestic hot water

#### ■ East 49th Street Development LLC

New York City, NY  
Con Edison Steam Operations  
122,342 square feet – heating,  
domestic hot water

#### ■ Lowertown Commons

St. Paul, MN  
Ever-Green Energy  
118,530 square feet – heating,  
cooling, domestic hot water

#### ■ Office Building

Philadelphia, PA  
Veolia North America –  
Trigen Philadelphia system  
164,000 square feet – heating,  
domestic hot water

#### ■ Condominiums/Apartments

Portland, OR  
Veolia North America –  
Trigen Portland system  
360,000 square feet – cooling

### School, Hospital, Institution

#### ■ Riley Hospital – Simon Family Tower

Indianapolis, IN  
Citizens Thermal Energy  
675,000 square feet – heating,  
cooling, domestic hot water,  
humidification

#### ■ 250 East 57th Street – New York City BOE

New York City, NY  
Con Edison Steam Operations  
170,000 square feet – heating,  
domestic hot water

#### ■ Richard T. Farmer School of Business

Oxford, OH  
Miami University  
218,423 square feet – heating,  
cooling, domestic hot water,  
humidification, kitchen

#### ■ Three Main Campus Buildings

Moscow, ID  
University of Ohio  
171,308 square feet – cooling

#### ■ Center for Academic Research Excellence

Cincinnati, OH  
University of Cincinnati  
250,787 square feet – heating,  
cooling, domestic hot water

#### ■ College Park Campus

College Park, MD  
University of Maryland College Park  
33,122 square feet – cooling

### School, Hospital, Institution - cont.

#### ■ **Medical BioSciences Building**

Minneapolis, MN  
University of Minnesota  
61,510 square feet – heating, cooling, process

#### ■ **Hospital**

Baltimore, MD  
Veolia North America –  
Trigen Baltimore system  
688,000 square feet – heating, domestic hot water, humidification, process

#### ■ **Hospital**

Boston, MA  
Veolia North America –  
Trigen Boston system  
350,000 square feet – heating, domestic hot water, process

#### ■ **Hospital**

Boston, MA  
Veolia North America –  
Trigen Boston system  
450,000 square feet – heating, domestic hot water, process

#### ■ **University**

Boston, MA  
Veolia North America –  
Trigen Boston system  
660,000 square feet – heating, domestic hot water

#### ■ **University**

Boston, MA  
Veolia North America –  
Trigen Boston system  
95,000 square feet – heating, domestic hot water, process

#### ■ **Historical Society**

Boston, MA  
Veolia North America –  
Trigen Boston system  
40,000 square feet – heating, domestic hot water

#### ■ **University**

Boston, MA  
Veolia North America –  
Trigen Boston system  
700,000 square feet – heating, cooling, domestic hot water, kitchen

#### ■ **University**

Grand Rapids, MI  
Veolia North America –  
Trigen Grand Rapids system  
320,000 square feet – heating, domestic hot water, kitchen

#### ■ **Youngstown State University Williamson College of Business Administration**

Youngstown, OH  
Youngstown Thermal LLC  
110,000 square feet – heating, cooling, domestic hot water



*Medical BioSciences Building*

### Other

#### ■ **BW3 Restaurant**

Indianapolis, IN  
Citizens Thermal Energy  
3,000 square feet – heating, cooling, domestic hot water

#### ■ **Court Building Ramp**

Minneapolis, MN  
NRG Energy Center Minneapolis LLC  
8,000 square feet – heating

#### ■ **Hennepin at 10th Street Ramp**

Minneapolis, MN  
NRG Energy Center Minneapolis LLC  
20,000 square feet – heating



### Commercial – Mixed Use

#### ■ JBR extension:

##### **Al Fattan Buildings**

Empower  
Dubai, United Arab Emirates  
2,145,392 sq ft – cooling



*Al Fattan Buildings*



*Royal Oceanic Building*



*Emirates Park Towers*

#### ■ JBR extension:

##### **Royal Oceanic Building**

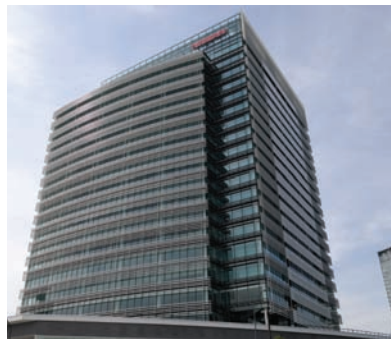
Empower  
Dubai, United Arab Emirates  
279,383 square feet – cooling

#### ■ Emirates Park Towers (BBET Extension)

Empower  
Dubai, United Arab Emirates  
1,852,853 square feet – cooling

#### ■ Nissan Motor World Headquarters Fuji Xerox R&D Square Building TOC Building Yokohama Blue Avenue Building

Yokohama, Japan  
Minato Mirai 21 District Heating  
& Cooling Co.  
5,338,944 square feet – heating,  
cooling, domestic hot water



*Nissan Motor World Headquarters*



*Fuji Xerox R&D Square Building*

#### ■ Jumeirah Lakes Towers

Dubai, United Arab Emirates  
Palm District Cooling  
5,858,580 square feet – cooling

#### ■ Palm Jumeirah Trunk

Dubai, United Arab Emirates  
Palm District Cooling  
8,157,723 square feet – cooling



*Yokohama Blue Avenue Building*



*TOC Building*

#### ■ Laffan Tower

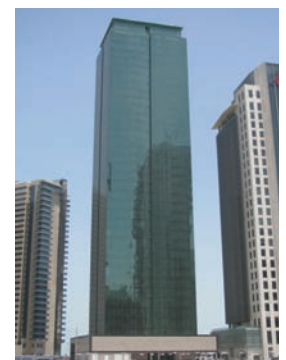
Doha, Qatar  
Qatar Cool  
252,422 square feet – cooling



*Jumeirah Lakes Towers*



*Palm Jumeirah Trunk*



*Laffan Tower*

### Commercial – Mixed Use - cont.

#### ■ The Pearl Qatar, Parcel 10

Doha, Qatar  
Qatar Cool  
128,095 square feet – cooling

#### ■ The Pearl Qatar, Parcels 7, 8, 9

Doha, Qatar  
Qatar Cool  
457,481 square feet – cooling

#### ■ The Pearl Qatar, Parcels 10, 11

Doha, Qatar  
Qatar Cool  
347,686 square feet – cooling



*The Pearl Qatar, Parcel 10*



*The Pearl Qatar, Parcels 7, 8 & 9*

### Commercial – Office

#### ■ JBR extension: Al Habtoor Building

Dubai, United Arab Emirates  
Empower  
316,485 square feet – cooling



*Al Habtoor Building*



*DOZ Arab Bank Building*

#### ■ DOZ Emirates Building

Dubai, United Arab Emirates  
Empower  
160,255 square feet – cooling



*DOZ Emirates Building*

#### ■ DOZ Arab Bank Building

Dubai, United Arab Emirates  
Empower  
69,596 square feet – cooling



*Jumeirah Islands Club House*

#### ■ DOZ Buildings

Dubai, United Arab Emirates  
Empower  
470,658 square feet – cooling

#### ■ DOZ Mashreq Bank Buildings

Dubai, United Arab Emirates  
Empower  
103,629 square feet – cooling

#### ■ Rames Tower

Doha, Qatar  
Qatar Cool  
342,596 square feet – cooling

#### ■ Dukhan Tower

Doha, Qatar  
Qatar Cool  
342,596 square feet – cooling

### Entertainment, Cultural or Sporting Center

#### ■ Jumeirah Islands Club House

Dubai, United Arab Emirates  
Palm District Cooling  
18,907 square feet – cooling



### Hotel

#### ■ Palm Jumeirah Crescent

Dubai, United Arab Emirates  
Palm District Cooling  
2,737,371 square feet – cooling,  
kitchen



*Palm Jumeirah Crescent*

#### ■ Marriott Renaissance

Doha, Qatar  
Qatar Cool  
557,051 square feet – cooling



*Marriott Renaissance &  
Marriott Courtyard*

#### ■ Marriott Courtyard

Doha, Qatar  
Qatar Cool  
202,906 square feet – cooling

### Residential

#### ■ Jumeirah Village South

Dubai, United Arab Emirates  
Palm District Cooling  
802,900 square feet – cooling

#### ■ Al Fardan Residence Tower

Doha, Qatar  
Qatar Cool  
740,043 square feet – cooling



*Al Fardan Residence Tower*



*Beach Tower*



*Umm Bab Tower*

#### ■ Beach Tower

Doha, Qatar  
Qatar Cool  
207,212 square feet – cooling

#### ■ Umm Bab Tower

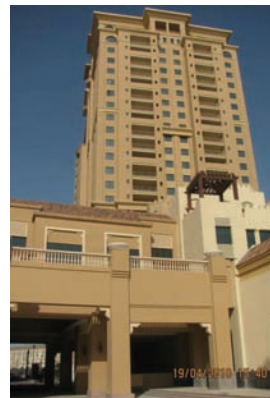
Doha, Qatar  
Qatar Cool  
291,712 square feet – cooling

#### ■ The Pearl Qatar–Alfardan Two

Doha, Qatar  
Qatar Cool  
355,221 square feet – cooling



*The Pearl Qatar–Alfardan Two*



*The Pearl Qatar–First Qatar*

#### ■ The Pearl Qatar–Al Arrab Contracting

Doha, Qatar  
Qatar Cool  
355,221 square feet – cooling

#### ■ The Pearl Qatar–Al Sabban Real Estate

Doha, Qatar  
Qatar Cool  
1,065,662 square feet – cooling

#### ■ The Pearl Qatar–First Qatar, Parcel 11A

Doha, Qatar  
Qatar Cool  
348,000 square feet – cooling



### Residential - cont.

#### ■ The Pearl Qatar–LaPlage West Villa

Doha, Qatar  
Qatar Cool  
98,685 square feet – cooling

#### ■ Lagoon Plaza

Doha, Qatar  
Qatar Cool  
2,082,885 square feet – cooling



*The Pearl Qatar–LaPlage West Villa*



*KV Phase II & III*

### School, Hospital, Institution

#### ■ KV Phase II & III

Dubai, United Arab Emirates  
Empower  
864,838 square feet – cooling

#### ■ Pitts Pillani College

Dubai, United Arab Emirates  
Empower  
634,777 square feet – cooling

#### ■ Institute of Management Technology (IMT) Campus

Dubai, United Arab Emirates  
Empower  
241,215 square feet – cooling



*Pitts Pillani College*



*Lagoon Plaza*



*Institute of Management Technology Campus*

#### ■ The Pearl Qatar–Al Arrab Contracting

Doha, Qatar  
Qatar Cool  
355,221 square feet – cooling

#### ■ The Pearl Qatar–Viva Bahri (VB-02)

Doha, Qatar  
Qatar Cool  
303,821 square feet – cooling

#### ■ The Pearl Qatar–Viva Bahri (VB-11)

Doha, Qatar  
Qatar Cool  
290,635 square feet – cooling

#### ■ The Pearl Qatar–Viva Bahri (VB-17)

Doha, Qatar  
Qatar Cool  
290,635 square feet – cooling

#### ■ The Pearl Qatar–Viva Bahri (VB-29)

Doha, Qatar  
Qatar Cool  
541,173 square feet – cooling



## Submit your entries for 2010

Make plans now to photograph and enter your customer buildings that commit or recommit for your district energy service during 2010! The deadline for submittal of buildings for 2010 is **Fri., April 8, 2011**.

To enter your newly committed, recommitted or connected customers for 2010, please download and complete the Excel® template found at <http://www.districtenergy.org/assets/Forms/2010DESpaceblankform.xls>.

Please use the form exactly as provided and fill in all appropriate cells to facilitate our compilation of the data. Submit the final document (list all buildings within one document) to Len Phillips at [len.idea@districtenergy.org](mailto:len.idea@districtenergy.org). Be sure to send as many building photographs as possible. Thank you.

To access past issues of *District Energy Space*, visit <http://www.districtenergy.org/district-energy-space>.



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