RUNREADY™

TOROMONT Power Systems

www.toromontpowersystems.com

ON-SITE POWER

Questions to consider when evaluating if a CHP system is right for your facility

As your organization determines whether on-site power is an important part of your business strategy, you should ask yourself the following questions:

- What would happen if my energy prices fluctuated 30 percent or more annually?
- What's the impact to my business if there was no grid-provided electricity for seven days or more?

Answering "yes" to any of the following questions indicates that the facility may be a good candidate for a combined heat and power (CHP) system:

- Do you pay more than $0.07 per kWh on average for electricity (including generation, transmission and distribution)?
- Are you concerned about the impact of current or future energy costs on your business?
- Is your facility located in a deregulated electricity market?
- Are you concerned about the reliability of your facility's electricity supply? Would there be substantial business, safety or health impacts if the electricity supply were interrupted?
- Does your facility operate for more than 5,000 hours per year?
- Do you have thermal loads throughout the year (such as steam, hot water, chilled water, or hot air)?
- Do you expect to replace, upgrade or retrofit central plant equipment (such as generators, boilers and chillers) within the next three to five years?
- Do you anticipate a facility expansion or new construction project within the next three to five years?
- Have you already implemented energy efficiency measures, yet still face high energy costs?
- Are you interested in reducing your facility's impact on the environment?

The process for evaluating whether CHP makes sense at a facility begins with an assessment of technical potential and

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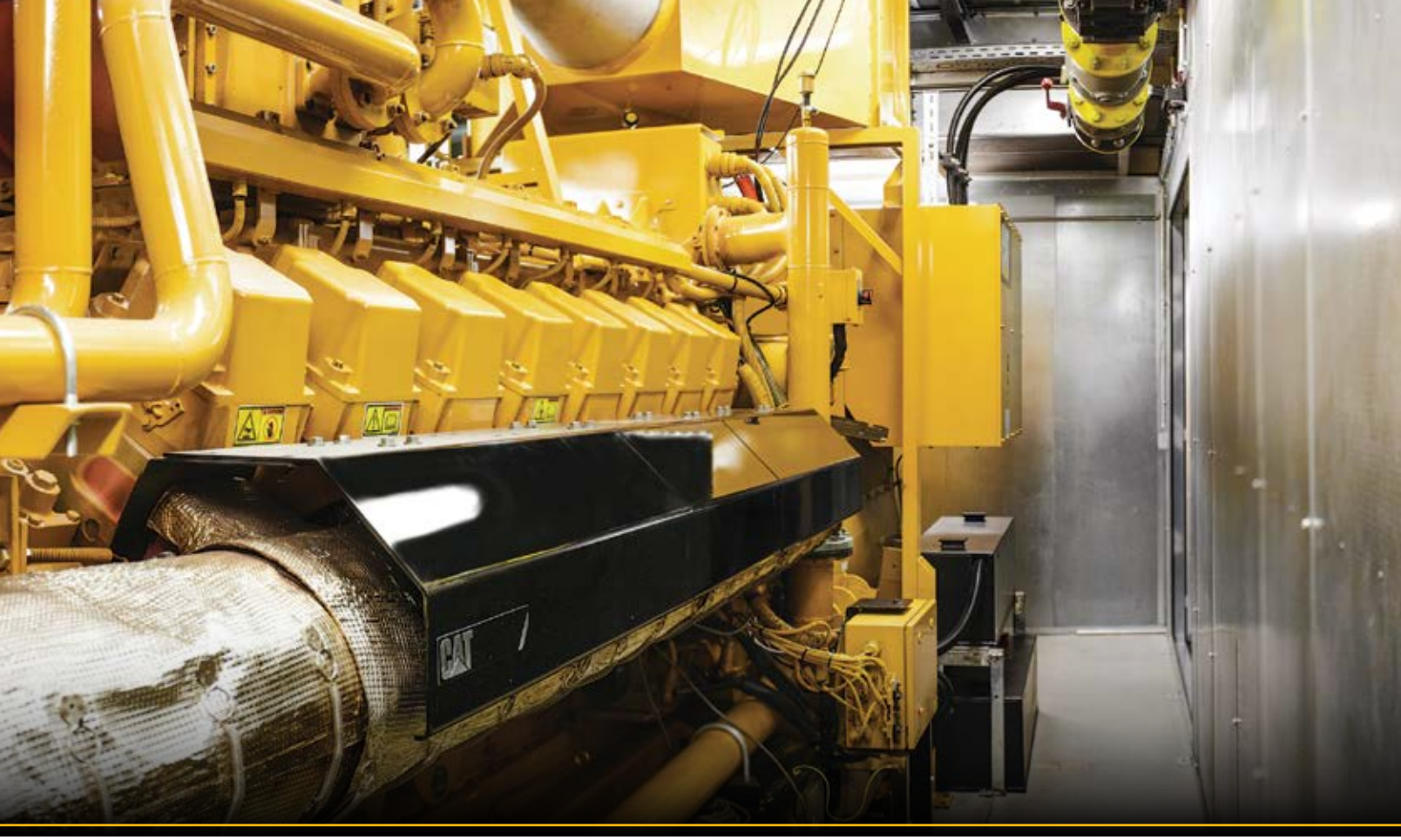

continues with an initial assessment of cost-effectiveness:

- **Technical potential**—CHP can be used in applications that have significant and coincident power and thermal loads. For optimal cost-effectiveness, CHP systems typically are designed and sized to meet the facility's year-round baseload thermal demand, which can include steam, hot water, chilled water, process heat, refrigeration, and dehumidification. CHP systems generate electricity and use waste heat to meet some or all of these demands. CHP can be a strong technical fit in many different types and sizes of facilities, including:
  - **Commercial buildings**—hotels and casinos, airports, high-tech campuses, large office buildings, nursing homes
  - **Residential**—condominiums, co-ops, apartments, planned communities
  - **Institutions**—colleges and universities, hospitals, prisons, military bases
  - **Municipal**—district energy systems, wastewater treatment facilities, K-12 schools
  - **Manufacturers**—chemical, refining, ethanol, pulp and paper, food processing, glass manufacturing
- **Cost-effectiveness potential**—The main benefits of CHP for the user are reduced energy costs and increased energy reliability. CHP can provide lower energy costs by replacing higher-priced purchased electricity and boiler fuel with lower cost self-generated electricity and recovered thermal energy. The cost-effectiveness potential of CHP depends on:
  - The cost differential between avoided electricity purchases and fuel used by the CHP system
  - Capital costs
  - Operating and maintenance costs
  - Planned new construction or other circumstances (such as equipment replacement needs) which may necessitate investments in new equipment such as HVAC or boilers
  - The value to the facility of improved electricity-supply reliability
  - Utility policies at the local, state, and federal level (e.g., utility interconnection requirements, standby/backup charges, and the potential compensation for electricity exports to the grid)

If the project shows technical potential and passes a cost-effectiveness screen, the next step is to review the results with key decision makers and determine how a project would be financed, its cash-flow impacts, and how it would fit into an organization's capital spending plans. If the results of this review are positive, proceed to a Level 1 feasibility analysis.

Contact the power systems experts at our dealership to help you determine if a CHP system is right for your facility.

Rx for SAVINGS

Hospital saves on energy with cogeneration system

With 24/7 energy demand, including heating and cooling, the typical hospital uses up to three times the energy of a commercial building.

Rapid increases in the price of energy in recent years have created challenges for hospitals, which operate on fixed budgets. But the rising price of energy has a silver lining that represents potential for substantial long-term savings.

Using a combined heat and power (CHP) or cogeneration plant in a hospital is an ideal way to improve energy efficiency and reduce carbon emissions. It can extend a hospital's limited financial resources, saving anywhere from 30 to 40 percent on energy costs, according to industry analysts.

Several years ago, Thunder Bay Regional Health Sciences Centre (TBRHSC) elected to install a cogeneration plant powered by a Cat® G3516H generator set to increase energy efficiency and reduce the reliance on utility power. The generator set—which is housed in an enclosure

Thunder Bay Regional Health Sciences Centre

located near a receiving area next to the hospital—was commissioned in late December 2015.

"As one of Thunder Bay's largest employers, we oversee a vast facility that requires a significant amount of electricity to heat, cool, illuminate, and power on a daily basis," said Jean Bartkowiak, President & CEO of TBRHSC and CEO of Thunder Bay Research Institute. "This project helps to reduce our energy costs and emissions, which also enables us to focus more resources on direct patient care."

"We're currently saving anywhere from $70,000 to $90,000 per month on our energy costs with cogeneration. And our savings are projected to increase in the future as electricity rates escalate."

ALLAN KOROL
Physical Plant Manager
Thunder Bay Regional Health Sciences Centre

The CHP plant produces more than 16 million kWh of power and approximately 50 billion BTUs of heat per year. During peak use periods, the hospital requires 4.2 MW of power, and an average of 3 MW. The cogeneration system supplies about 75 percent of the hospital's power needs.

Additionally, the new plant provides supplemental electrical power in the event of an extended power outage.

With a daily average of 420 patients plus a staff of 2,500, the demand for electricity and hot water is constant, says Allan Korol, physical plant manager for TBRHSC.

"Cogeneration is a good fit for a big building such as ours," Korol says. "This facility is full of patients 24 hours a day, seven days a week and 365 days of the year. So the need for energy is continuous.

"The fact that natural gas is fairly reasonably priced and electricity in Ontario is expensive and getting more expensive makes this an attractive proposition for us," Korol adds. "We're currently saving anywhere from $70,000 to $90,000 per month on our energy costs with cogeneration. And our savings are projected to increase in the future as electricity rates escalate."

Thermal efficiency

Heat recovered from the plant's Cat genset engine is not released into the air as waste, but instead is captured and used to produce hot water, thereby reducing the costly use of boilers and fuel. Electricity is produced by burning natural gas—a cleaner fuel that reduces TBRHSC's carbon footprint.

Waste heat from the engine is utilized in both high temperature and low temperature loops. The high temperature loop, which is in the 190 °F range, is injected directly into the boiler supply that provides hot water for the whole facility. Utilizing the waste heat cuts in half the amount of energy required to operate four water boilers, says mechanical power engineer James Cole.

The low temp loop is used for preheating reverse osmosis water that is utilized in humidification and boiler

Continued on page 6

CUSTOMER PROFILE

Thunder Bay Regional Health Sciences Centre

Location: Thunder Bay, Ontario, Canada

Application: Cogeneration plant

Cat® Equipment: G3516H generator set, Switchgear (600V, 2,500 amp)

Thunder Bay Regional Health Sciences Centre

THUNDER BAY REGIONAL HEALTH SCIENCES CENTRE

Thunder Bay Regional Health Sciences Centre is an acute care facility serving Thunder Bay and northwestern Ontario, Canada. The facility has earned a worldwide reputation for its award-winning, innovative design. Situated on a landscaped site of nearly 70 acres, the 375-bed hospital was architecturally designed to provide a more inviting and less stressful atmosphere for patients, visitors, and staff.

Effectively addressing the health care needs of patients and families has earned the hospital both innovation awards and leading practice designations.

The hospital offers an expansive range of specialist services, and is designated as an academic health sciences centre. Its research arm, the Thunder Bay Regional Health Research Institute, houses the region's only Cyclotron and Radiopharmacy, capable of producing medical isotopes for clinical use. TBRHSC is consistently ranked as one of the top 40 research hospitals in Canada.

As one of the largest employers in Thunder Bay with nearly 2,800 staff, 500 volunteers and 100 Patient Family Advisors, the annual operating budget is over $300 million.

For more information, visit **www.tbrhsc.net**

makeup water through a heat exchanger. The low temp water is utilized in two air handlers that preheat the air before a glycol system completes the process.

"So it's adding efficiency to these two air handling units," Cole says. "The low temp loop is just the icing on the cake."

Waste heat from the genset also increases the efficiency of the steam boilers. Altogether, the combined efficiency realized from the Cat cogeneration plant is in the high 80s, Cole says.

A sound attenuated enclosure engineered by Cat dealer Toromont Power Systems houses the generator set and switchgear. The Cat Switchgear is designed for utility paralleling with islanding capability. It controls and monitors the entire CHP system, and includes both generator and utility protection.

To meet environmental standards, a Selective Catalytic Reduction (SCR) system placed on the roof of the enclosure reduces NOx emissions from 70 to 80 parts per million down to 30 parts per million. A 100-foot stack sends the exhaust past the roofline of the four-story hospital.

"We're meeting all Ontario Ministry of the Environment requirements with regard to emissions to the atmosphere and noise abatement," Korol says.

Toromont ensures high uptime

In order to maximize savings, the generator set needs to run continuously, 24/7. Currently, uptime is a reliable 95 percent, with only periodic shutdowns for planned maintenance.

Hospital building system operators monitor the cogeneration enclosure two to three times during each 12-hour shift and take critical readings that have been recommended by Toromont.

"We monitor the operation, and look for changes," Korol says. "We have cameras set up to monitor inside the cogen enclosure," Korol says. "It's a confidence builder for us, and a good way to keep an eye on this piece of equipment.

"As we now know from experience, there are a lot of moving parts—a lot of technology is involved and it has to run all the time," Korol continues. "And we have some external factors beyond our control that can shut the generator down, such as our communication link, voltage spikes when a storm comes through, or electrical maintenance shutdowns from our utility."

Genset enclosure with SCR system

Over the first year since the Cat G3516H was put into service, the hospital's building system operators have become well versed at operating the generator set.

HOSPITAL CHP **ADVANTAGES**

- Low emissions
- Reduces energy costs
- Provides cost certainty
- Increases energy efficiency
- Enhances energy reliability
- Offers significant financial return

Cat G3516H: Robust high-speed diesel block design provides prolonged life and lower owning and operating costs. It's designed for maximum performance on low-pressure gaseous fuel supply. Simple open chamber combustion system provides reliability and fuel flexibility. Leading-edge technology in ignition system and air/fuel ratio control deliver lower emissions and greater engine efficiency. One electronic control module handles all engine functions: ignition, governing, air/fuel ratio control and engine protection.

"Toromont's presence has proven to be dependable," Korol says. "We call them anytime day or night and there's always somebody here within an hour or so, so we have a good on-call support system to help us resolve any operating issues."

Having a maintenance and repair contract is critical because it enables TBRHSC to forecast how much they will need to spend over the next 10 years maintaining the cogen system, so they can budget accordingly, Korol says.

In the selection process, Cat gensets were compared to other manufacturers.

"Toromont won that competitive process, and I think a big part of it is that Caterpillar makes an established product with a track record of reliability that is as good or better than anybody else," Korol says.

"Toromont has a major service presence here in Northern Ontario, and that aligns well with our requirements.

THE SUPPORT YOU NEED

Customer Support Agreements let you focus on running your business

As a Cat® customer, you are part of the most powerful support system in the world—a system that sets the standard for parts and service support, from extensive parts inventories to preventive maintenance, diagnostics and emergency service—all backed by field technicians who know your needs and are prepared to meet them.

We have a variety of tools to help you manage risk and control costs, all customized specifically for you to provide the exact amount of support you need.

A Customer Support Agreement (CSA) custom designed for you is one of the most convenient and affordable ways we can help you take advantage of these valuable resources. CSAs go by many names and cover many aspects of maintenance, repair and power system operation.

These highly flexible agreements can range from scheduled inspection and preventive maintenance to before-failure overhauls and total cost-per-hour guarantees. What service you include will depend on your equipment, your installation and your employee capabilities—factors we will carefully analyze with you before an agreement is proposed.

Every CSA has one primary goal: to free up valuable time for you to focus on what you do best—managing and growing your core business.

One of the most important features of a CSA is flexibility. There are no pre-determined requirements or specific products or services that you must agree to buy. Instead, every CSA is an individualized plan tailored to your needs that keeps you in control of your budget. A CSA will:

- Reduce the risk factors associated with equipment failure
- Ensure that highly-trained technicians work on equipment
- Ensure that services are performed at the correct intervals
- Use S•O•S℠ Fluid Analysis to detect potential problems
- Provide peace of mind that equipment will function properly

The CSA's cost can be either a monthly flat rate, a cost-per-hour based on the engine's hours, or some other pricing structure based on the type of service anticipated over the period of the CSA's coverage.

Here are a few of the more common options:

- Inspection Programs
- Preventive Maintenance
- Total Maintenance and Repair
- Customized Agreement

To find out more about how a tailored Customer Support Agreement can work for you, contact our dealership.

REMOTE ACCESS

Gas processor relies on Cat® power in off-grid setting

With an emphasis on growing and developing clean energy sources, AltaGas Ltd. is actively developing gas-processing infrastructure in support of its Northeast British Columbia strategy.

Calgary-based AltaGas is investing more than C$1 billion to grow its presence in Western Canada by developing assets that provide producers with a complete energy value chain to move natural gas and natural gas liquids to multiple markets, including new premium markets in Asia.

A key phase of the Northeast B.C. strategy is the development of AltaGas' C$430 million Townsend Facility, which began commercial operations last July. Located 62 miles north of Fort St. John, the facility has the ability to process 198 million cubic feet of raw gas, which is delivered from the field via three separate pipelines. The gas comes from wellheads in the Montney resource play—a 55,000-square-mile area straddling northeast British Columbia and Alberta rich in natural gas reserves that are steeped in liquid byproducts.

When the raw gas enters the Townsend Facility, water and liquids are separated by compressing the gas and cooling it in a refrigeration unit down to -40 °F, causing liquids to be produced while dehydrating the gas. The processed gas is compressed again and delivered to the export pipeline as sales gas.

Last year, AltaGas received regulatory approval for the doubling of the Townsend Facility to 398 Mmcf/d and to retrofit the existing shallow-cut 198 Mmcf/d facility to a deep-cut facility at a future date. An initial expansion that includes a 100 Mmcf/d shallow-cut gas processing facility located adjacent to the currently operating Townsend Facility is expected to open this fall.

Another project currently under construction and tied by a pipeline to Townsend is the C$125-$135 million

Continued on page 10

CUSTOMER PROFILE

AltaGas Ltd.

Location: Townsend, B.C., Canada

Application: Field gas processing plant

Cat® Equipment: G3520H generator sets (5), Taurus 70 Solar Turbines (4)

AltaGas

North Pine Facility, located 25 miles northwest of Fort St. John. Once complete, the North Pine Facility will take liquid byproducts piped from the Townsend Truck Terminal and separate them into propane, butane and condensate, and ship them via connecting rail to various destinations.

This year, AltaGas announced that it will begin construction on Canada's first propane export facility. Located on Ridley Island near Prince Rupert British Columbia, the C$450-$500 million terminal will be designed to ship 1.2 million tons of propane per year, and together with AltaGas' northeast facilities, will provide producers new access to premium Asian markets for their propane.

Off the grid

Due to its remote location, the Townsend Facility is not connected to the utility grid. Therefore, it needs to generate its own power. This is accomplished by utilizing five Cat® G3520H generator sets which operate on the processed natural gas. Four of the G3520Hs produce a combined 12.5 MW, with the fifth genset in reserve in an N+1 configuration.

Power from the gensets is mainly utilized to power compressors and other ancillary loads, including pumps, motors, heaters, and fans. The facility also includes four 7965 kWe Taurus 70 Solar Turbines, which drive the plant's main gas compressors.

"In this situation, the grid option was not viable—connection to the grid is far from Townsend," said Dave Zoobkoff, Divisional Vice President Operations – Gas at AltaGas. **"**Our customer had a schedule in place that dictated that we have an onsite power solution in time to meet their schedule."

AltaGas' Cat dealer, Finning, designed the power plant, and supervised the installation of the generator sets and ancillary equipment.

"Finning was very helpful in terms of providing us with what we needed, and making sure the Townsend Facility was commissioned and running smoothly,"

Zoobkoff said. "Everything was on time, and we are very pleased with the genset solution they provided to power to the facility."

Additionally, an electric house is included as part of the solution to tie the gensets into a common bus for

Townsend Facility

distribution of power. The entire package is non-standard, and customized by Finning.

"The generators are the heart of the plant—if they are not working properly, it knocks out production and everything stops," said plant operations manager Lorne Monagle: "The team at Finning has been responsive and receptive to the critical nature of our facility."

G3520H advantages

G3520H generator sets are designed to be effective in continuous-duty applications. For applications isolated from a primary electric utility such as the Townsend Facility, the G3520H offers industry-leading load acceptance capability. The increased power density of the generator sets provides a compact size that helps reduce installation costs.

Also, the G3520H meets most worldwide emissions requirements down to 0.5 g/bhp-hr NOx level without aftertreatment. Multiple NOx emissions settings are available.

"Ensuring that we have low emissions engines in place is not only good for the environment, it also decreases our exposure to fuel and carbon taxes," Zoobkoff said. "For every bit of fuel that we burn, we are taxed on it, and we have to pay for carbon emissions. All of this is reported to the provincial government, so a penny saved is a penny earned. If we have engines that run efficiently, then we are more cost efficient."

All routine and ongoing preventive maintenance on the gensets is performed by Finning technicians under a Customer Support Agreement.

"Their mechanics are easy to work with, they know our systems," Monagle says. "If we encounter an issue, we depend on them to respond quickly and get us back up and running."

AltaGas has Finning service agreements for maintenance at the Townsend Facility and across Western Canada.

Altogether at its various operations, AltaGas has 29 Cat compressor drivers and 14 gensets with a total installed horsepower of 86,240 hp. The generator sets are capable of producing a combined 32 MW. AltaGas utilizes a total of nine Cat Solar Turbines at its various facilities.

New major projects will add 15 Cat engines with total horsepower of 34,000 hp, including three gensets totaling 4.1 MW.

"We are finding that it pays to have similar equipment in our facilities to lower our operating costs," Zoobkoff says. "The Cat engines run really well—they have been been a very reliable engine for us. And the support we receive from Finning has been great."

ALTAGAS LTD.

AltaGas Ltd. (AltaGas), is a leading North American energy infrastructure company with a focus on natural gas, power and regulated utilities.

Based in Calgary, Alberta, AltaGas' business strategy is underscored by strong growth in natural gas supply and the growing demand for clean energy. The company has more than 1,700 employees in Canada, Alaska, Michigan, California, Washington State and Texas.

AltaGas is focused on growing through the acquisition and development of energy infrastructure, including infrastructure to provide access to new markets and the potential for higher netbacks to producers in the Western Canadian Sedimentary Basin.

The company has three business lines that include:

- A gas midstream business in Western Canada that moves about 2 billion cubic feet of gas per day.
- A power generation business, with a combined total of 1,688 MW in generation assets.
- A regulated gas distribution business with ownership in five utilities across North America serving more than 570,000 customers.

The gas segment includes natural gas gathering and processing, natural gas liquids extraction and separation, transmission, storage, and natural gas marketing. The gas segment has significant prospects for growth in British Columbia and Alberta.

The power generation business is located across North America with more than 1,600 MW of capacity derived from four fuel types. There are significant opportunities to expand in California and across the U.S., as well as the potential opportunity to develop new gas-fired and renewable generation in Alberta to replace coal.

The utility segment delivers natural gas to homes and businesses in Alaska and Michigan in the United States and to three provinces in Canada.

SAFETY NET

Burgeoning medical complex requires reliable power

Sparked by private giving, the University of Nebraska Medical Center (UNMC) campus has seen unprecedented growth in recent decades. Projects that are either completed, in progress or on the drawing board are designed to facilitate research growth, expand patient care and renew and enhance education space.

Since 2006, a combined $1 billion in construction for various medical specialties has added 1.6 million square feet of new buildings to the campus in central Omaha. Currently, UNMC has 55 buildings—and growing—totaling about 6.5 million square feet.

New facilities for drug discovery, cancer research and a center for aging that conducts Alzheimer's research are among the many new buildings to sprout on the 124-acre campus.

In a setting teeming with cutting-edge medical technology, perhaps the most forward-looking venture on the horizon is the $118.9 million Global Center for Advanced Interprofessional Learning.

Expected to open next year, the next generation training facility known as iEXCEL℠ will house a variety of spaces in which learners are immersed in simulated and virtual, life-like scenarios—complete with realistic smells piped into a virtual surgical setting. These 3D scenarios will enable aspiring

medical professionals to practice individual and team skills without putting themselves or their patients at risk.

iEXCEL will be adopted across all UNMC campuses statewide. New teaching methods will enable practicing providers across Nebraska and around the world to upgrade their clinical care skills.

"iEXCEL will transform health care education just as aviation simulation changed the flight industry," said UNMC Chancellor Jeffrey P. Gold, M.D.

iEXCEL is expected create up to 325 well-paying jobs and generate an estimated $137 million annual economic impact for both Omaha and the rest of Nebraska.

Backed by Cat® power

Because the UNMC-Nebraska Medicine campus combines patient healthcare facilities along with research education, it is required by the Health Care Facilities Code (NFPA 99) to provide alternate power to the essential electrical systems.

UNMC has nine Cat® 3516 diesel generator sets housed in two separate buildings. Combined, the gensets provide 17.5 MW of power to the campus in standby mode, and are rated at 16 MW for prime or continuous power—which is essentially the demand equivalent of a small town.

In the event of a power failure from the utility grid, UNMC's generators are tied together on one common 4,160-volt system, which enables any of the nine gensets to feed power to any building on campus, says Neal Buxcel, manager of utilities for UNMC.

"If any one of our largest generators fails, we still maintain generator capacity for the critical healthcare loads," Buxcel says. "So when you look at the whole system, right now we're sitting pretty good. Both the central utility plant and the east utility plant have N+1 capacity."

Redundant PLC systems at both the Central and East Utility Plants control

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CUSTOMER PROFILE

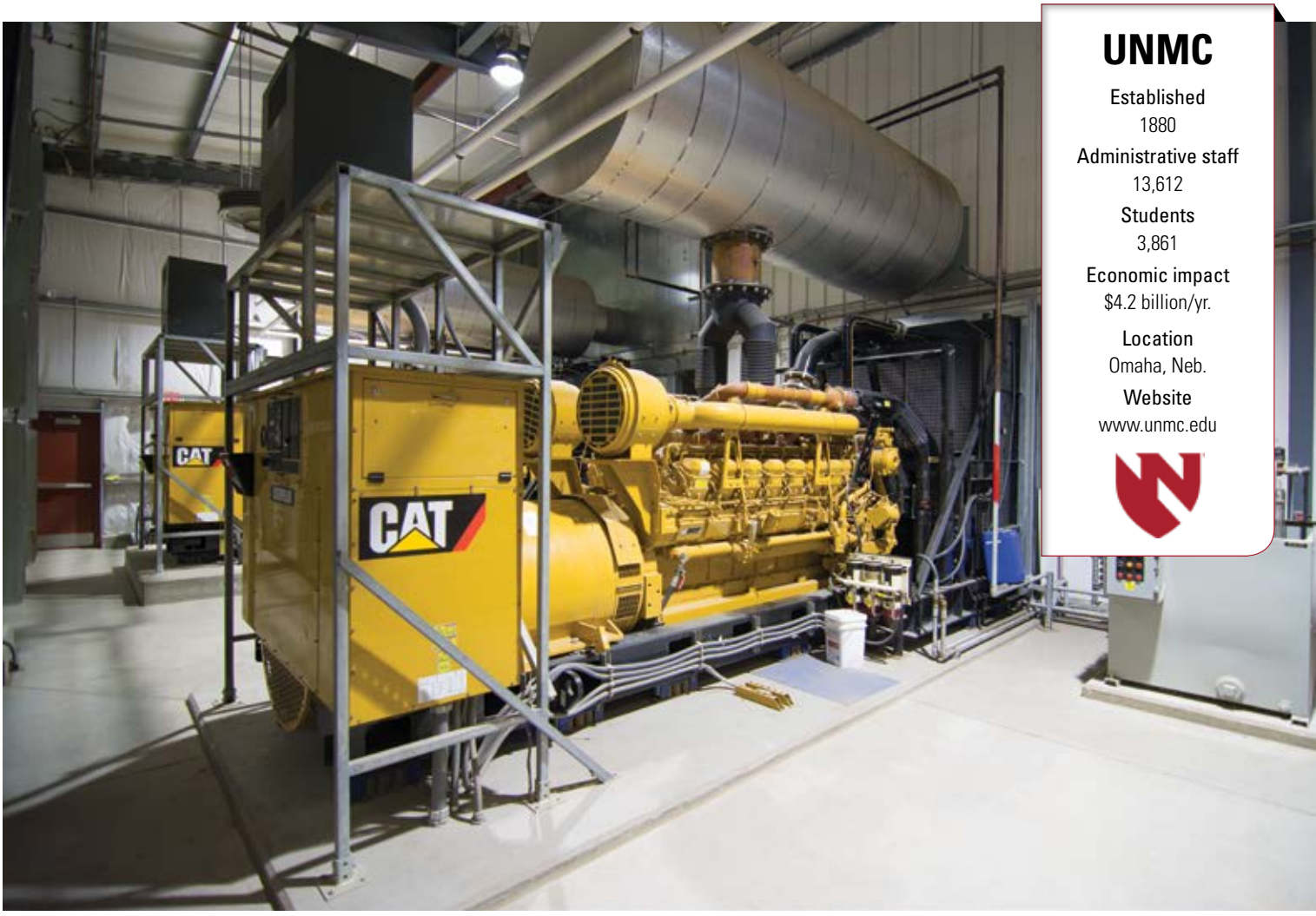
University of Nebraska Medical Center

Location: Omaha, Neb.

Application: Standby power, curtailment

Cat® Equipment: 3516 generator sets (9), Automatic Transfer Switches generator sets

UNMC
UNIVERSITY OF NEBRASKA MEDICAL CENTER



UNMC

Established
1880

Administrative staff
13,612

Students
3,861

Economic impact
$4.2 billion/yr.

Location
Omaha, Neb.

Website
www.unmc.edu

the operation of the generator sets and distribution circuit breakers. In the event of a power failure, a series of automatic transfer switches transfer the utility load to the generators, and maximum load is achieved within 10 seconds.

The Cat gensets can also be operated in parallel with Omaha Public Power District's electrical grid in a cogeneration configuration. This enables UNMC to test the gensets at full load and curtail use of grid power when called upon by the local utility.

Since 1999, UNMC has had an agreement with the utility whereby it can curtail power it receives from the utility grid and self-generate 13.5 MW to the campus. This occurs on hot days during the summer when the demand for grid power peaks. When called upon, UNMC is required to run for eight to 12-hour intervals.

"We have 13.5 megawatts available from June 1 to September 15, so any time during that timeframe they can ask us to put our generators online to reduce the load on the grid," Buxcel says.

UNMC receives a monthly payment for having the available capacity, and is paid an additional $2.30 per kWh when the gensets run.

Running in parallel with the utility to generate prime power means the newest

"When we were starting up with Tier 4, it was all fairly new, and they (NMC) did a great job of coming down and doing whatever it took to get the system up and running."

NEAL BUXCEL
Manager of Utilities
University of Nebraska Medical Center

gensets need to be Tier 4 certified. The two newest gensets commissioned in 2015 are Tier 4 interim, while three others at the East Utility Plant have an oxidation catalyst system added, which brings those gensets into compliance with EPA emissions requirements for existing engines. The four units at the Central plant are new enough that they meet all EPA requirements.

"When we looked to add the newest generators, our Cat Dealer, NMC, made a competitive bid, and the 3516Cs were able to meet the new Tier 4 emission requirements," Buxcel said. "When we were starting up with Tier 4, it was all fairly new, and they did a great job of coming down and doing whatever it took to get the system up and running."

All of the Cat gensets are tested monthly, and run for an hour at 90 percent load, or higher. On a daily basis, operators at both plants perform a series of checks and document their findings. That includes checking the oil and coolant levels, making sure everything is operating in auto mode, and ensuring that all batteries are fully charged.

"So everyday we have a checklist and our operators go around to do it," Buxcel says. "We also have weekly checklists and monthlies and quarterlies and annuals, and semi annuals.

"Since we're a hospital and a research facility here, we have to do everything in our power to keep the gensets up and ready to run at a moment's notice," he says. "So basically we track everything pretty closely on what we have to do on the generators and make sure it gets done."

Timely dealer support

The medical center has a Customer Support Agreement with NMC, where technicians perform oil and coolant changes, along with performing annual preventive maintenance.

"I think it's good to have somebody watching out for your assets here to make sure that we're doing routine maintenance at the proper time," Buxcel says. "Or we get reminders that say:

'It has been a while since you've done this—are you going do it? Or should we take care of it?' So having that coverage from the Cat dealer is good."

All nine of the Cat gensets have been installed at UNMC since 2001. What stands out to Buxcel is the reliability of the units.

"We really haven't had many issues with them, whatsoever, and the few issues we've had we have always received a timely response from the NMC techs to come down and solve the problem," Buxcel says.

"We have a good working relationship with NMC—I have the personal phone numbers of all of their techs," he continues. "On occasion, I've had to call on the weekends and the evenings, and I've never had an issue with someone getting back to me right away. They're always willing to come whenever we need them." RR

UNIVERSITY OF NEBRASKA MEDICAL CENTER

Located in Omaha, the University of Nebraska Medical Center (UNMC) is a public center of health sciences research, patient care and education.

Founded as a private medical college in 1880, UNMC became part of the University of Nebraska System in 1902. During a period of rapid expansion in the early 20th century, the university founded a hospital, dental college, pharmacy college, and a graduate college of medicine.

In 1968, the University of Nebraska decided to bring all of the health sciences under one umbrella and formed the University of Nebraska Medical Center campus, which houses six colleges: medicine, nursing, pharmacy, public health, dentistry (based in Lincoln, Neb.), and allied health professions. In 1997, the UNMC hospital merged with the nearby Clarkson Hospital to become Nebraska Medicine.

In 2016, UNMC was ranked 5th in the United States by *U.S. News & World Report* in the "Best Medical Schools: Primary Care" category, and its physician assistant program ranked ninth in 2015.

As one of Omaha's top employers, UNMC has an endowment valued at $641 million and, along with its hospital partner, Nebraska Medicine, an economic impact of $4.2 billion.

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BUILT FOR IT.™

OUR EXPERTS WILL HELP YOU GET THE JOB DONE—RIGHT

Whether you're installing a backup generator for your small business, working with an engineering firm to upgrade your manufacturing plant, or designing a new power station from ground up, our Power Systems experts can provide the right level of support—when you need it. Depend on our experts to help you:

- Reduce risks and delays that could impact your timeline
- Understand the necessary permits and approvals required
- Manage proper installation
- Provide reliability testing and startup services
- Supply training to facility personnel as necessary

Contact the Power Systems experts at our dealership for more information.