

Mosaic announces moves
Executive changes are part
of succession plan. **D2**

Oil Q&A: Why stocks and prices are dropping. D3

Iran is market-ready
Europeans are ready to
begin business. **D6**

MINNESOTA 2 • MARKET DATA 4 • CLASSIFIEDS 5

THURSDAY, JANUARY 21, 2016

StarTribune

STARTRIBUNE.COM/BUSINESS • SEC1

BUSINESS

Large solar farm wins approval

The \$180 million power project is planned for leased farmland in Chisago County.

By DAVID SHAFFER
david.shaffer@startribune.com

The largest solar power project in Minnesota won approval Wednesday from state regulators.

North Star Solar, a \$180 million solar farm to serve Xcel Energy customers, is planned

on leased farmland southeast of North Branch in Chisago County. The project, covering an area the size of two Lake Calhouns, will generate roughly the amount of electricity used in 25,000 homes.

The Minnesota Public Utilities Commission voted 4-0 to grant permits to Community

Energy Solar of Radnor, Pa., to erect solar panels and a related power line. The company will own and operate the project, and expects to begin selling the power to Xcel by the end of the year.

It is by far the biggest in a wave of large, ground-mounted solar arrays that energy companies are planning to build across Minnesota in the next few years. The solar boom is driven by a state

requirement that investor-owned utilities get 1.5 percent of their power from solar by 2020 and by growing demand from consumers who choose electricity from shared projects called solar gardens.

The Minnesota Solar Energy Industries Association, a trade group, is projecting a 30-fold increase in the state's solar generating capacity by the end of 2017. Hundreds of large shared-solar

projects are planned in rural areas and on the urban fringe, including Wright, Dakota and Washington counties, mostly to serve customers of Xcel, the state's largest power company.

"We are expecting to go from 25 megawatts of mostly rooftop solar to 750 megawatts by the end of next year," said David Shaffer, development director and general counsel of the trade group.

See **SOLAR** on D2 ▶

Oil take stocks o another wildrid

A recovery near the c
helped keep the sessi
from becoming a dise

By NEIL GOUGH
New York Times

Stocks in the United
had a wild day of tr
as worries about eco
growth and the cont
slump in oil prices we
on investors.
Markets had been st

TARGET'S NEW CONSUMER

CEO Brian Cornell is meeting Target shoppers in their homes to get to know its changing customer, and adding 1,000 IT jobs to meet growing needs.



DAVID IOLES • djoles@startribune.com
CEO Brian Cornell flew to Chicago Wednesday to meet consumers in their homes to get a better idea of the Target customer.

State's largest solar array wins approval

◀ SOLAR from D1

One megawatt equals 1 million watts, and the output of North Star Solar will be 100 megawatts, the equivalent of a modest-sized traditional power plant.

Many of the new solar projects will replace farmland with fields of glass. Some people who live near the North Star project object to the transformation of the rural landscape even though the developer is required to plant trees for screening.

Seven unhappy homeowners who would be surrounded by the North Star project are being bought out by the developer — a voluntary step that regulators applauded. Even so, Commissioner John Tuma, who lives in rural Rice County, said the PUC or the Legislature may need to consider additional protections for rural residents.

"You do have these little clusters out there, where people who bought their little Xanadu are living," Tuma said. "These are the ideal places for these facilities, so we have to figure out how to balance."

Not all of North Star's neighbors got buyout offers, and the commission's decision disappointed them. "It will take 20 to 25 years for the trees to grow up," Bob Zangs, who lives south of the North Star site, said in an interview after the meeting in St. Paul.

Another neighbor is considering moving, but feels caught in a bind. "We don't know what we are going to do," said Rick Ramber, who also lives south of the project. "If you sell the place, what are you going to get for it, and where are you going to go?"

Similar issues have been raised by neighbors of another

large solar project that NextEra Energy Resources proposes to build for Xcel near Marshall, Minn. That project, still awaiting regulatory approval, is about two-thirds the size of the North Star project. Another 25-megawatt solar project is planned by Juwi Energy near Tracy, Minn., also for Xcel.

Unlike most solar arrays, which are positioned at a fixed angle facing south, North Star's panels will mechanically tilt from east to west, tracking the sun's movement. At noon, the panels will be horizontal. The tracking system captures more solar power late on summer days, when power demand often spikes.

"With the tracking system, you can maintain maximum output of the project into the evening as air conditioning load peaks," said Chase Whitney, an executive with Community Energy Solar. "A tracking solar project that can generate into the evening peak is a more valuable asset from the utility's perspective."

Xcel, the Minneapolis

Super Bowl to the Metrodome, keep the Minnesota Timberwolves in town and build a new ballpark for the Minnesota Twins.

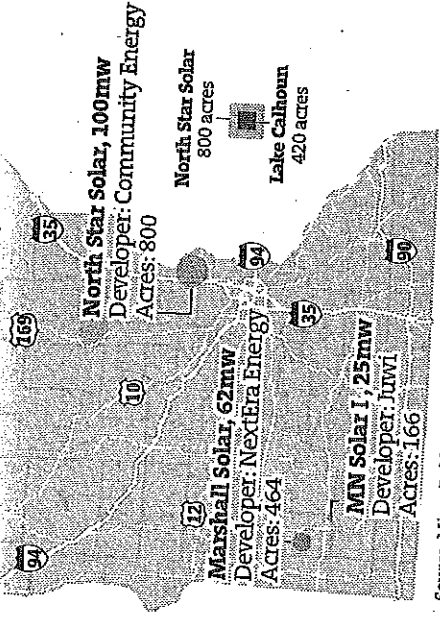
Dayton, whose father Donald was a brother to Bruce and Kenneth Dayton, is survived by his wife Joan Layng Dayton, brothers Edward of Florida and John of Dallas, and sons James, a Minneapolis architect, Scott, who owns Twill menswear in the Galleria, and Tobin of Wayzata.

Dayton died Sunday. Services are pending.

John Ewaldt • 612-673-7633 | Rochelle Olson • 612-673-1747

LARGE-SCALE SOLAR PROJECTS FOR XCEL ENERGY

Three large solar projects are planned by Xcel Energy around the state. State regulators approved the largest, North Star Solar, on Wednesday.



Source: Minn. Public Utilities Commission RAY GRUMNEY • Star Tribune

based utility serving 1.2 million electric customers in the state, has contracted to buy all of the electricity from the North Star, Marshall and Tracy projects for 25 years. They were selected after the utility solicited bids from energy developers in 2014.

Xcel also has approved applications from energy developers to build 46 com-

munity solar gardens in its service region. More than 700 other solar garden projects remain under review. Many of those projects are to be built in clusters of five solar gardens, with each group covering a land area roughly equivalent to eight football fields.

David Shaffer • 612-673-7090 @ShafferStrib

by the end of the first quarter.

Analysts noted that division sales and the expansion of strategic alternatives on the heels of several pricey acquisitions and downturns when industrial growth is slowing worldwide. Sell-oncore businesses is common practice and brings a jolt of money that can help for 3M's big spends, they said.

While 3M is historically known for its wealth of diverse products, "this small shift is not likely reflective of a major change in the fit of additives into 3M's portfolio more broadly," said Matt Arnold, analyst with Edward Jones. "We would look at it as more of a 'bottom up' evaluation product lines that may not be of importance strategically anymore."

After years of tiny or no deals, 3M spent \$2.5 billion in June to buy protective equipment maker Capital Safety based in Bloomington. In August, the company spent \$1 billion on Polycore's ultrafiltration "Separations Media" business.

3M CEO Inge Thulin told analysts last month that "these deals will enhance two of 3M's core platforms, personal safety and filtration."

In respect to selling other businesses, "ultimately, we determine that selling these businesses will result in the greatest value creation for our company," Thulin said. The company's stock fell 1 percent to close at \$136.90 Wednesday.

Dee DePass • 612-673-7725

