Fredrikson & BYRON, P.A.

MEMO

TO: Bundorf Family Trust

FROM: Wild Springs Solar, LLC

DATE: July 31, 2020

RE: Wild Springs Solar, LLC (EL 20-018): Responses to Bundorf Family Trust Questions

---

Wild Springs Solar, LLC ("Wild Springs") provides the following responses to the questions provided to the South Dakota Public Utilities Commission ("Commission") Staff by the Bundorf Family Trust regarding the Wild Springs Solar Project ("Project"). In addition, Wild Springs addresses two questions posed by Ms. Bundorf during the July 23, 2020 Commission Meeting.

1. Apparently this project has been in process since mid-2017, but landowners weren't informed until June of 2020. To date, a number of the people who live in New Underwood haven't even heard of the project. Although it will be built on private property, the impact to local life cannot be dismissed.

RESPONSE: Wild Springs initially contacted landowners owning land in the area identified for potential development of a solar facility. Wild Springs executed lease agreements with landowners in 2016.

Additionally, the following meetings were hosted to provide information and answer questions from various stakeholders:

- Project Introduction Meeting (July 2017): Wild Springs met with Pennington County to discuss the Project.
- Project Overview Meeting (February 4, 2020): Invitations were sent to all adjacent landowners and community stakeholders including members of the New Underwood City Council. Meeting was held at the New Underwood Community Center.
- WAPA Environmental Scoping Meeting (March 3, 2020): Notice was mailed to participating landowners and land located directly adjacent to the Project. Notice of this meeting was also published in the Pennington County Courant on February 13th and 27th. Meeting was held at the New Underwood Community Center.
- South Dakota Public Utilities Commission Public Input Meeting (July 1, 2020): Wild Springs mailed notice of the public input meeting to landowners in and within 1/2 mile of the Project. Also, the Commission published notice of this meeting three times in the Rapid City Journal.

2. **The amount of traffic, if routed through the main part of town, would be extremely impactful. Has the developer mapped out the proposed access to the project? One resident suggested that 159th Avenue, a road that connects to Highway 1416 west of town, could be used to bypass Main Street. This would provide a lot of relief to the locals who need to access the bank and post office and other businesses on Main Street frequently.**

   RESPONSE: While there may be additional vehicles traveling in and through New Underwood during construction to access goods and services, designated travel/haul routes to site are not anticipated to be routed on city streets. Wild Springs has had initial discussions with the Pennington County Highway Department and additional coordination will take place when the engineering, procurement and construction ("EPC") contractor is selected for the Project, and utilizing 159th Avenue for site access will be considered.

3. **Since the project may employ 150 people, that could mean as many as 130 vehicles coming to and leaving the site 5 days a week for many months. That doesn't include the number of trucks delivering equipment to the site. Would it be possible for the developer to have a "park and ride" setup for workers; i.e., have the workers park remotely and be shuttled to the work site?**

   RESPONSE: A park and ride will not be necessary as Wild Springs will work with the Pennington County Highway Department to designate road use/haul routes that minimize impacts to the surrounding community. Additionally, vehicles will be traveling to and from the site throughout the day, not all at one time. While traffic may temporarily increase, construction employees generally increase local spending and many community members and stakeholders in the area appreciate the additional business that is generated from the increased activity.

4. **Will the developer repair, or pay to repair, the road and bridge damage resulting from the heavier than normal use?**

   RESPONSE: Wild Springs does not expect on any oversized or overweight loads to be required for the Project. If there are any oversized or overweight loads, Wild Springs or its contractors will obtain any necessary permits and approvals from the appropriate road authority in advance of transporting the loads.

5. **Although there is mention that the New Underwood School System "could" receive $25,000 every year for 20 years, that leaves a lot of unanswered questions and is extremely vague. Is there any guarantee that the school system would receive anything, or anything anywhere near $25,000?**

   RESPONSE: The Project is committed to providing $200/year per megawatt ("MW") of capacity for the first 20 years of the Project. If the Project is constructed at 128 MW, this will be $25,600 per year. We will work with the local school district on the details of how best to structure and utilize the funding to benefit the education of those in and around the Project area.

Note that the voluntary funding described above is in addition to the taxes paid by the Project, which benefit the State, County, and schools.

6. **What is the estimated capacity factor for the project? This isn't the developer's first project, so they should know quite accurately how much the output would be in the location selected. Typically, capacity factor is less than 30 percent for solar, and no doubt less than that for South Dakota.**

RESPONSE: The Project's expected an annual capacity is under 30 percent, and will be consistent with the capacity factor of other commercial-scale solar projects in the U.S. Additionally, the generation profile (i.e., timing of output) of solar aligns with energy need, which means its value is not tied solely to capacity factor.

7. **Since solar is intermittent, how will this impact the grid?**

RESPONSE: The Project is treated as any other large generator on the grid, i.e., the same interconnection study processes are conducted, and the Project is subject to the same curtailment and reliability standards.

8. **Where are the panels manufactured? If in a foreign country, will the present international tariffs, etc. impact delivery and project completion?**

RESPONSE: A panel supplier has not been finalized, so the manufacturing location of the panels has not been confirmed. Generally, panels used in the U.S. market are manufactured in supplier's facilities in Southeast Asia or in the U.S., and as such are not subject to Section 301 tariffs applied to goods manufactured in China (so-called "anti-dumping" tariffs). Other tariffs currently applicable to imported solar panels are scheduled to end in February 2022, prior to the anticipated delivery dates for the Project.

9. **Will the recent Executive Order on bulk power systems impact acquisition of products needed to complete the project? See the article at this link:**

https://www.natlawreview.com/article/doe-rfi-trump-executive-order-bulk-power-system-grapples-national-security?utm_content=6e34884db521ef1448c73782f5b41efe&utm_campaign=2020-7-16Energy%20%26%20Environment%20Legal%20News&utm_source=Robly.com&utm_medium=email.

RESPONSE: We do not believe the order will apply to this Project, but if upon implementation some components are affected, we are able to source necessary equipment from vendors who would not be considered "foreign adversaries" under the executive order with little impact to the Project schedule.

10. **The environmental issues seem to be covered quite thoroughly, however, there is a mention of a prairie dog town. Are there any black-footed ferrets there? I understand there are several prairie dog towns in western South Dakota where there are ferrets present.**

RESPONSE: Black-footed ferrets have been reintroduced into Badlands National Park, Buffalo Gap National Grasslands, Cheyenne River Sioux Reservation, Lower Brule Sioux Reservation, Rosebud Sioux Reservation and Wind Cave National Park and therefore occur in Pennington County; however, this species is not expected to occur within the Project. Black-footed ferret require black-tailed prairie dog colonies of at least 80 to 150 acres to support one ferret. The Project lacks suitable habitat for the black-footed ferret because the prairie dog colony, even in its larger former extent, does not meet the 80 acre minimum size requirement. Additionally, due to the lack of occurrences outside of the reintroduced populations, it is unlikely this species would occur at the Project. Additionally, no black-footed ferrets were identified during field surveys.

11. **Although the issue of "lake effect" of solar panels with regard to migratory birds was downplayed in the environmental reports, there is presently a study underway that may provide more clarity to the issue. Since this is an area that the Whooping Crane migrates through, I don't think the lake effect can be entirely dismissed. http://innovation.energy.ca.gov/SearchResultProject.aspx?p=31337&tks=637302323007907108 More information may be available here: http://www.aviansolar.org/home.html.**

RESPONSE: The "lake effect" hypothesis posits that some birds may misinterpret a photovoltaic ("PV") solar project as open water habitat, resulting in possible mortality due to stranding, panel collisions, or some other process. This hypothesis poses a particular issue for water-obligate birds (i.e., species that rely on water for take-off or landing [e.g., loons, grebes]) as these species will likely die due to stranding, as observed in a handful of cases at PV solar projects in the deserts of southern California (Kosciuch et al. 2020). The Avian Solar Work Group recently identified lake effect as a priority for future research and a California Energy Commission research grant was awarded to the U.S. Geological Survey, WEST, Bard College, and Humboldt State University to test predictions of the lake effect hypothesis. While the data available thus far suggest some minor level of attraction exists for some species in the deserts near the Salton Sea in southern California (an important wintering and migration stopover site for thousands of water-obligate birds), any resulting negative impacts appear to be minimal.

While whooping cranes prefer standing water for roosting, this species is not considered a water-obligate bird and can take off from dry land. Therefore, whooping cranes would not be at risk of stranding at solar facilities due to a potential "lake effect". Additionally, as described in the Natural Resource Strategy for the Project, whooping cranes are unlikely to occur due to limited available stopover habitat within the Project boundary and higher quality stopover habitat located outside of the Project. For these reasons, whooping cranes do not appear to be at a high risk for adverse effects from a potential "lake effect" at the Project.

12. **Are there plans to build a battery bank nearby in the future? An article by Connor Matteson published February 19, 2020, quotes Dick Johnson CEO of West River Electric, "A lot of that renewable energy is going to be stored at a plant in New**

Underwood." Since solar energy isn't "stored" unless there are batteries, is this a misquote or something that will be built in the future?

RESPONSE: Battery storage is not included in this permit application and is not currently a part of this Project. If storage or batteries are to be added at a later date, the appropriate permitting will be completed.

13. **Can the developer provide information on how many years it will be before the project can be considered "carbon neutral"; that is, how long will it take for the carbon-free energy produced by the project, to offset the amount of fossil fuels used mine, mill, manufacture, transport, and install the panels and bring the project online? They state the project will result in the equivalent of taking 42,000 cars off the road each year, but does that account for carbon emissions from getting the project up and running.**

RESPONSE: According to the article "Real Energy Payback Time and Carbon Footprint of a GCPVS" (http://dx.doi.org/10.3934/energy.2017.1.77), the total carbon dioxide equivalent of the manufacture and transport for a large-scale PV system is 587kg/kw-DC. Based on the anticipated Project output and capacity factor, the carbon-neutrality period for the Project is approximately 9 months.

14. **[From July 23, 2020 Commission Meeting] Will installation of the Project negatively affect the value of the Bundorf Family Trust property?**

RESPONSE: Studies have been completed that indicate properties adjacent to solar projects do not see negative property-value impacts. A paired-sales study of the sale of properties adjacent to nine solar farms in Illinois and Indiana, for example, found "little to no measurable and consistent difference in value" between sales of properties adjacent to solar farms and control properties. This finding led the authors to conclude that "properties surrounding other solar farms operating in compliance with all regulatory standards will similarly not be adversely affected, in either the short or long term periods." https://www.mcleancountyil.gov/DocumentCenter/View/13192/Patricia-L-McGarr--Property-Value-Impact-Study?bidId=. Additionally, the attached study of a 100 MW solar facility in Minnesota found no negative impact on surrounding property values.

15. **[From July 23, 2020 Commission Meeting] Will installation of the Project increase property taxes on the Bundorf Family Trust property by increasing property taxes on the parcels hosting the Project?**

RESPONSE: Pursuant to State law, the Project will pay taxes based on the capacity and production of the Project. Please see section 9.7.1.2 of the application for additional details. Separately, the land included in the Project will continue to be subject to real property taxes. The local taxing authorities set property tax rates based on a variety of factors; therefore, it is uncertain how taxing authorities will set tax rates in the future.

Chisago County Assessor's Study

Minnesota

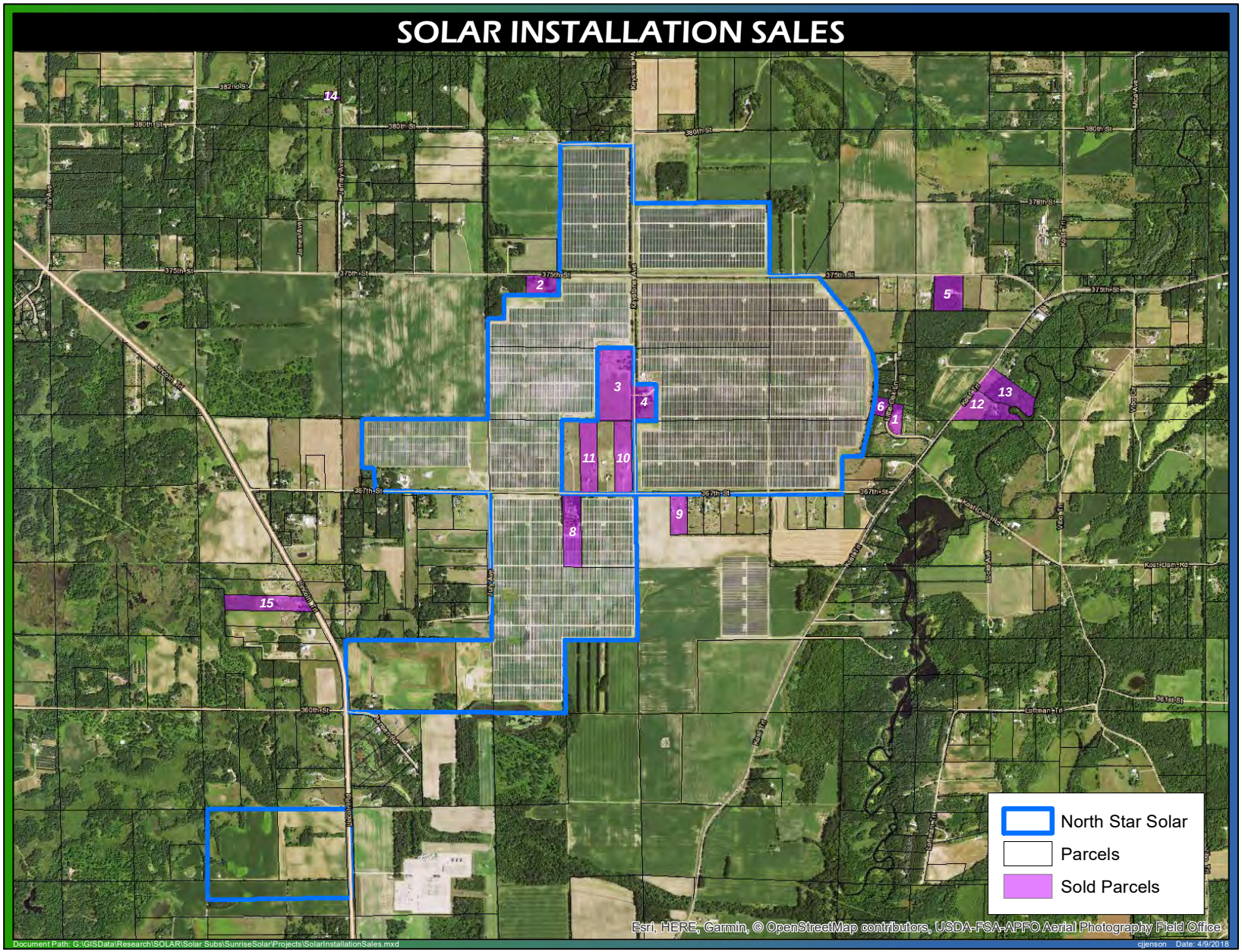
How to Read the Chisago County Property Value Report

The Map

- This map communicates the location of a large, 100 MW solar facility and its proximity to the properties detailed in the Chisago County report.
  - The blue line represents the project's footprint.
- Each purple parcel represents a property detailed in the Chisago County report.
  - The numbers assigned to each purple parcel match the numbers presented in the far-left column of the second page of the Chisago County report, or the third page in the combined map/report document.

The Report

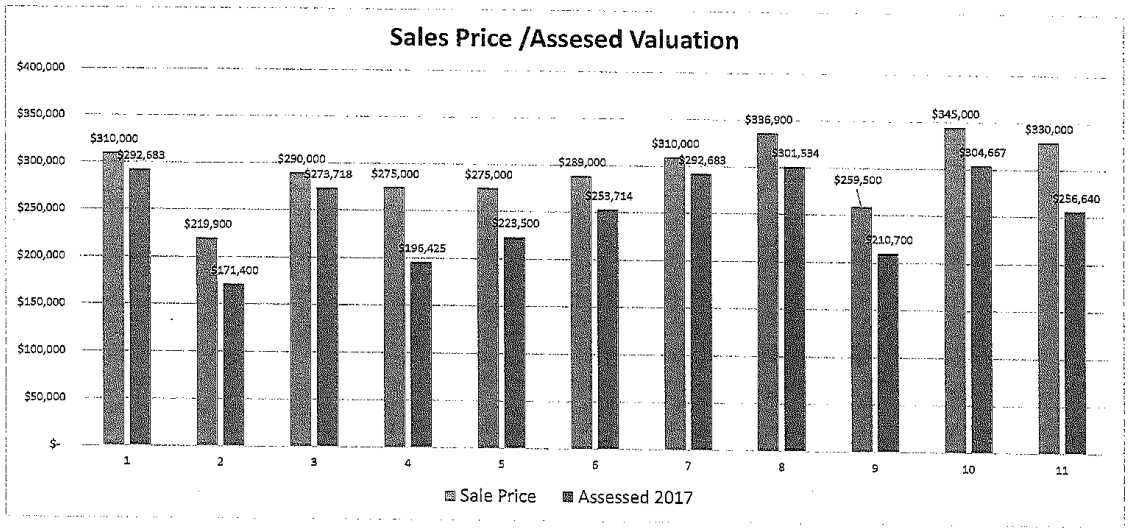
- The Chisago County report provides detailed information about each property's overall value.
- The numbers in the far-left column of this page match the numbers assigned to each purple parcel on the map.
- Parcel ID's are provided in the second column (moving left to right).
- Address information for each property is provided in the third column.
- Each property's sales status is provided in the fourth column.
  - Note that each property presented here either sold or was a pending sale after the solar project shown on the map page was under construction or operational, as detailed in the Sale Date column (fifth column).
- The following three columns provide price comparisons between the actual sales price and the assessed values of each property in 2016 and 2017. Assessments were completed on January 2 of each given year. The timeline for assessment is from October 1 through September 30. For example, for the 2016 assessment value, the timeframe of review was October 1, 2014 through September 30, 2015.
  - Note that the assessed prices for properties with assessments performed in 2016 were also sold in 2016
- The final column shows the ratio between the sales price and the assessed price.
  - Taking the first property as an example (located at 3708 Little Oak Trail), the assessed value of the property in 2017 was $292,683. The home sold for $310,000 in May 2017. This sale price represents a 6% increase above the assessed value of the home, or an additional $17,560 in value and sales price.
- All but one of the fifteen sold properties had a sale price above the assessed value of the property.
  - It is important to note that a myriad of factors go into the calculation of a property's assessed value, as well as its sales price. These include, but are not limited to:
    - Assessments are conducted on a market basis based on recent sales of homes in the area
    - Size of and number of buildings onsite
    - Size and type/use of land onsite
    - Age and condition of buildings and/or building components (electrical, plumbing, HVAC, etc)
    - Cosmetics and appeal of finishings


SOLAR INSTALLATION SALES
North Star Solar
Parcels
Sold Parcels
Esri, HERE, Garmin, © OpenStreetMap contributors, USDA-FSA-APFO Aerial Photography Field Office
Document Path: G:\GISData\Research\SOLAR\Solar Subs\SunriseSolar\Projects\SolarInstallationSales.mxd
cjenson Date: 4/9/2018

H:\Solar\Copy of Solar Installation Sales research 10-2017

SOLAR INSTALLATION SALES FROM JAN. 2016 TO OCTOBER 2017

	PID	Address	Sale Status	Sale date	Sale Price	Assessed 2016	Assessed 2017	Ratio
1	09.00780.02	3708 Little Oak Trl	sold	5/5/2017	$ 310,000		$ 292,683	94%
2	11.00525.00	10009 375th St	sold	3/30/2016	$ 219,900	$ 171,400	$ 171,400	78%
3	11.00526.00	37206 Keystone Ave	sold	6/15/2017	$ 290,000		$ 273,718	94%
4	09.00351.00	37083 keystone Ave	sold	8/28/2017	$ 275,000		$ 196,425	71%
5	09.00326.20	11391 375th St	sold	4/18/2016	$ 275,000	$ 223,500	$ 223,500	81%
6	09.00780.11	37096 Little Oak Ln	sold	4/11/2017	$ 289,000		$ 253,714	88%
7	09.00780.02	37081 Little Oak Ln	sold	5/5/2017	$ 310,000		$ 292,683	94%
8	11.00732.10	10095 367th st	sold	6/15/2017	$ 336,900		$ 301,534	90%
9	09.00359.60	10505 367th St	sold	8/19/2016	$ 259,500	$ 210,700	$ 210,700	81%
10	11.00728.40	10254 367th st	pending	10/27/2017	$ 345,000		$ 304,667	88%
11	11.00728.20	10132 367th St	pending	10/15/2017	$ 330,000		$ 256,640	78%
							Median:	87.8%
	*	Sunrise Twp. 2017 Preliminary Median Ratio is 88.2%.					Avg. Dev.:	6.72%
	*	North Branch 2017 Preliminary Median Ratio is 85.6%.						
		In The Area:						
12	09.00331.00	37101 Kost Trl	Sold	11/16/2016	$ 154,900		$ 207,046	134%
13	09.00333.00	37165 Kost Trl	sold	5/12/2017	$ 339,900		$ 235,335	69%
14	11.00996.00, 10	38080 Jeffery Ave	pending	11/1/2017	$ 399,900		$ 309,062	77%
15	11.00725.13	36338 lincoln trl	sold	6/17/2016	$ 304,000	$ 278,200		92%



11/3/2017 2:19:00 PM

County Board real estate update shows no 'solar effects'

Anybody who is trying to sell a home or vacant property is likely pleased with the rebound of real estate in Chisago County; but for staff in the county assessor and auditor offices, sales activity also means data-updating and monitoring how it all impacts the county overall tax capacity.

And, the property taxation formula affects how local levies are distributed over individual parcels.

With property tax public hearings approaching soon, the broad horizon of For Sale signs and Open House announcements zooms inward, as city councils, school boards and the county board finalize what they will want to collect next year.

The overall increase in market valuation for property in the county is up 7.15 percent.

The number shown recently to the county commissioners is $5 billion, 239 million and some odd thousand dollars. Not back to what it was at the (manipulated) peak before the great real estate recession-- which was $5 billion 920 million and some odd thousand.

Data presented at the County Board meeting laid clear one major sub-set of statistics the county policymakers are keeping a sharp eye on. The impact the biggest solar array in Minnesota is having (or not) on property values.

The assessor reported that the 1,000 acre rural North Branch- Lent substation-and-Sunrise Township solar energy project, known as

"North Star," has had no apparent negative impact on surrounding property values.

County Assessor John Keefe said there have been 750-plus property sales throughout the county.

Within this data he watched numbers for 15 parcels alongside or close to North Star that have sold. (Three offers as of print deadline were pending.)

Keefe and Deputy County Auditor Bridgitte Konrad presented a valuation summary and budget recap to the County Board. Estimates are that the countywide tax base increased within one to 1.2 percent for next year's payable property tax. And, although the solar effect is not yet a multi-year study, Keefe feels, after analyzing sales near or adjacent to the massive panel array, "There is no adverse impact there."

The value of sales of properties near North Star, between January 2016 and October 2017-- on 375th, 367th, Keystone, Little Oak, Lincoln Trail and Kost Trail were nearly all in excess of assessed. Keefe reported, "It seems conclusive valuation hasn't suffered."

One parcel on Kost Trail was the exception assessed at $207,046 and selling for $154,900.

There was much additional detail in the full report-- but of interest countywide:
~ Farmland acreage dipped from five years ago. There are 103,419 now and in 2012 there were 128,677 acres. Five years before that-- in 2007, there were 176,304.

~ The border of Washington and Chisago County still serves as the great demarcation line in agricultural land value. In Washington County a Green Acre value per acre of tillable land in Scandia is $8,400. This compares to $3,300 in Franconia and Chisago Lake South. The further north in Chisago County ag property is-- the Green Acre (farmland rent capitalization) value decreases. It goes to $2,400 per acre in Nessel, Harris and Sunrise North.

~ Waterfront properties' prices are up eight to nine percent 2015 to 2016 (as of Oct). The 2016 trend for non-waterfront is up six percent. (Based on 1,097 total residential sales in 2016)

~ New home construction permits total as of end of September were 116.

The county zoning department is at 105 percent of budgeted for construction and land use (subdivision, platting) permit revenues for 2017, with Oct, Nov and Dec remaining.

Life