

## SOLAR AT 1971 SEWELL STREET, LINCOLN, NE



- 3.7 kW system with Battery Ready System
- 10 panels at home
- 3 additional virtual (VNM) panels bought from LES
- Proposal from Dixon Power Systems: 10/5/2016; System Online: 1/3/ 2017

### Installation Cost

- Total home-solar project cost = \$20,840
- LES Capacity Payment / Rebate = \$1,387
- 26% Federal Tax Credit = \$6,252
- Net Home-solar Cost = \$13,201
- Net Solar Cost (includes 3 VNM Panels from LES): \$15,0256 (VNM: Virtual Net Metering)

### Warranty

- Inverter – 5 years
- PV Modules – 30 Years

Expected Annual Production of home solar – 5,141 kWh

### Actual Annual Production of home solar

- 2017 and 2018: Data not available
- 2019: 4,299 kWh
- 2020: 4,687 kWh
- 2021: 4,430 kWh
- 2022: 4,850 kWh
- 2023: 4,630 kWh

## ENERGY INFO

Total Home Solar Energy Generated in 5 years (2019 – 2023) = 22.90 MWh

Total VNM Solar Energy Generated in 5 years (2019–2023) = 8.76 MWh

% Electrical Energy from Solar

$$\frac{\text{Solar Used Onsite} + \text{Home Solar to Grid} + \text{VNM Solar to Grid}}{\text{Billed by LES} + \text{Solar Used Onsite}}$$

- 2019: 88.46%
- 2020: 72.93%
- 2021: 63.20%
- 2022: 69.17%
- 2023: 61.12%

*(The % dropped after June 2019 when we bought Nissan Leaf with 40kWh battery capacity)*

## ENVIRONMENTAL BENEFITS FROM FIVE YEARS OF OPERATION

- CO2 Emission Saved: 27,133 lb.
- Equivalent Trees planted: 571

## PANEL UPGRADE

Our panel was upgraded to 100A in 2009 when we replaced our gas furnace with a dual system (heat pump plus gas furnace). The solar panel installation did not require additional panel upgrade.

Our Nissan Leaf is charged from a standard 110-volt outlet in the garage. If we were to upgrade to a level-2 charger, we would probably need to upgrade our panel to 200A and our wiring and circuits to the garage.