Baldwin City Solar

Past, Present and Future

Where is Baldwin City?

Baldwin City (pop. est. 4,800) is located in Douglas County, Kansas 20 miles south of Lawrence.

Home of Baker University (The oldest four-year university in Kansas).

Home of the famous Maple Leaf Festival held every October since 1958.

Past, Present, and Future Generation

Our first power plant was built in 1907 and is still in operation. Our second power plant was built in 2003.

Baldwin City built a one (1) MW solar array on about five (5) acres of city-owned land in 2019.

Baldwin City is evaluating a proposal for an additional 2-3 MW of solar to be constructed on public school district property.


N 200 Rd
19th St
Orange St
Solar Array:
1.1583MW DC/0.9000MW AC
198 Strings of 18 Solar Modules
(3,564) 325W Solar Modules
(15) 60kW Solectria Inverters
© 2017 Google
455 ft

Why Solar Power and Why Now?

Environmental Concerns

Political Concerns

Economic Concerns

Replacement for expiring baseload contracts (proposed solar)

Environmental Concerns

Baldwin City is in Douglas County and we have a large group of environmentally conscious individuals. They are demanding clean energy.

Baldwin City implemented an aggressive net metering policy years ago to accommodate people who wanted to install rooftop solar.

Political Concerns

- **The city council has historically supported renewable energy sources such as wind and hydro-electric projects. We currently have two wind and two hydro projects in addition to solar.**

- **The mayor and council set a goal for the city to achieve 100% renewable power.**

Economic Concerns

The price of solar versus the price of all other sources of power

Large businesses began installing large rooftop solar power.

The university and the schools have explored solar power projects.

Choosing a partner for project

In 2018 Baldwin City sent out a Request for Proposals for a one (1) MW solar farm to be located on city land.

We received six (6) proposals.

City staff collaborated with staff members from KMEA to evaluate the proposals.

All agreed that Evergy had the best proposal.

Terms

The City and Evergy entered into a Power Purchase Agreement (PPA) at 5.6 cents/KWH for 30 years with an option for the city to purchase the solar array after seven (7) years.

Baldwin City currently purchases wholesale power through KMEA for an average price of 5.6 cents/KWH (2021).

Ground breaking in March 2019

Project completion in August 2019

Benefits of Solar Power

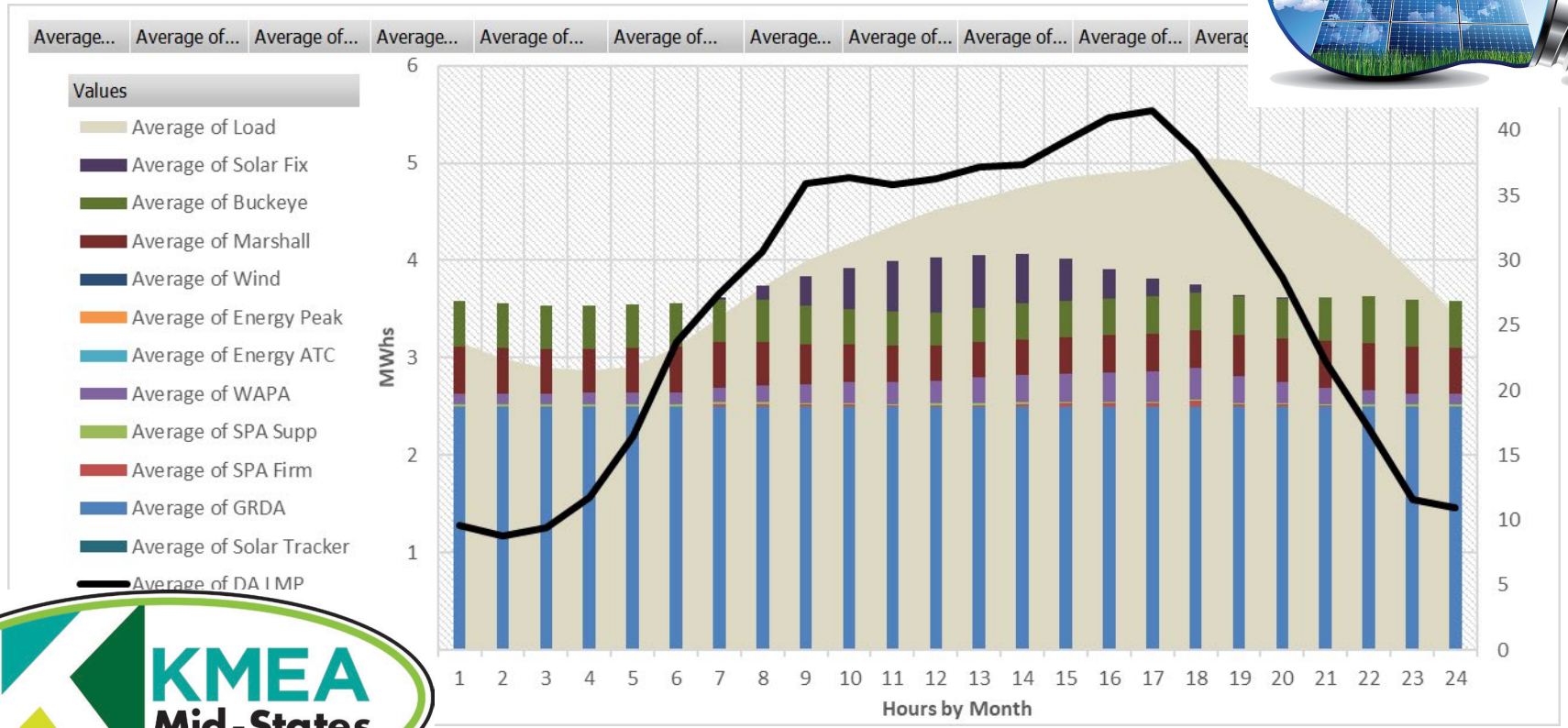
Green Power: Baldwin City received 27.61% (2021) renewables.

Environmental: No fuel and no emissions and no noise.

Education: The city met with Baker University business and science students during this project with help from Evergy.

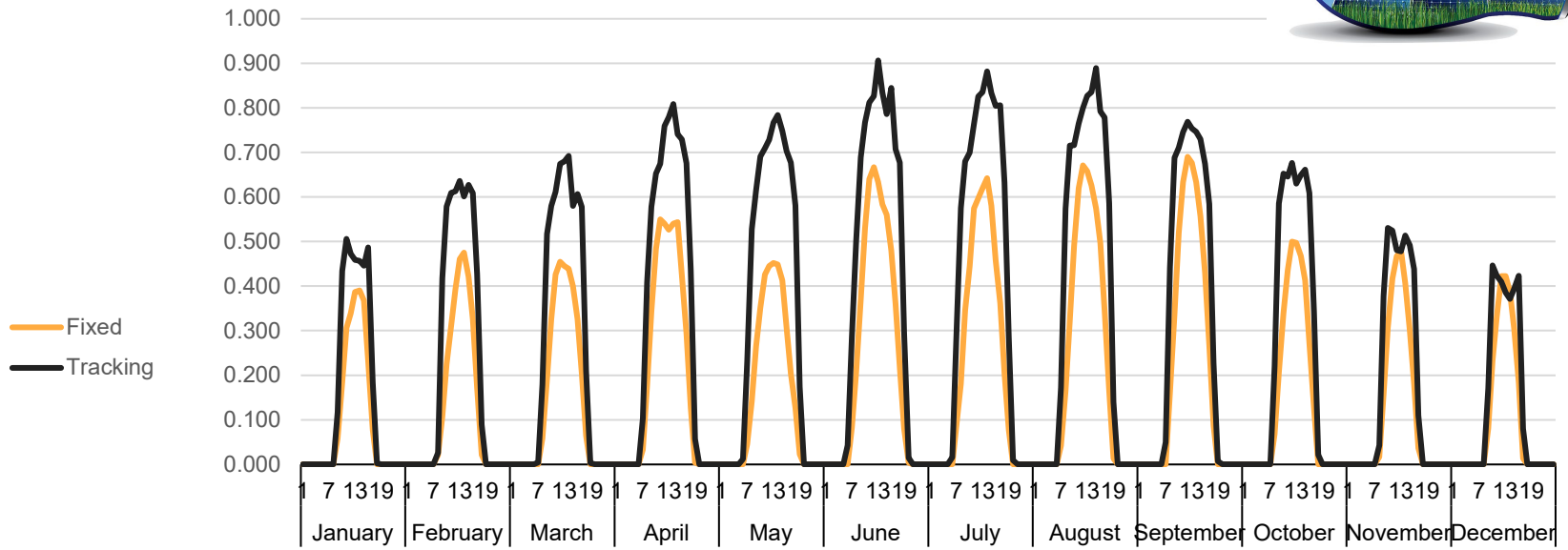
Economic. Solar power is competitive with other sources of power.

Baldwin – Energy Portfolio



KMEA Mid-States

Solar – Fixed vs. Tracker



Technology	Installed Capacity (MW)	Capacity Factor (%)	Energy (MW)
Fixed Solar	1	17%	1489
Tracking Solar	1	27%	2365

Baldwin City Solar Project II

SITE LOCATION PLAN
Baldwin Solar Project ■ Baldwin City, Kansas
March 25, 2022 ■ Terracon Project No. 14225011

Terracon GeoReport

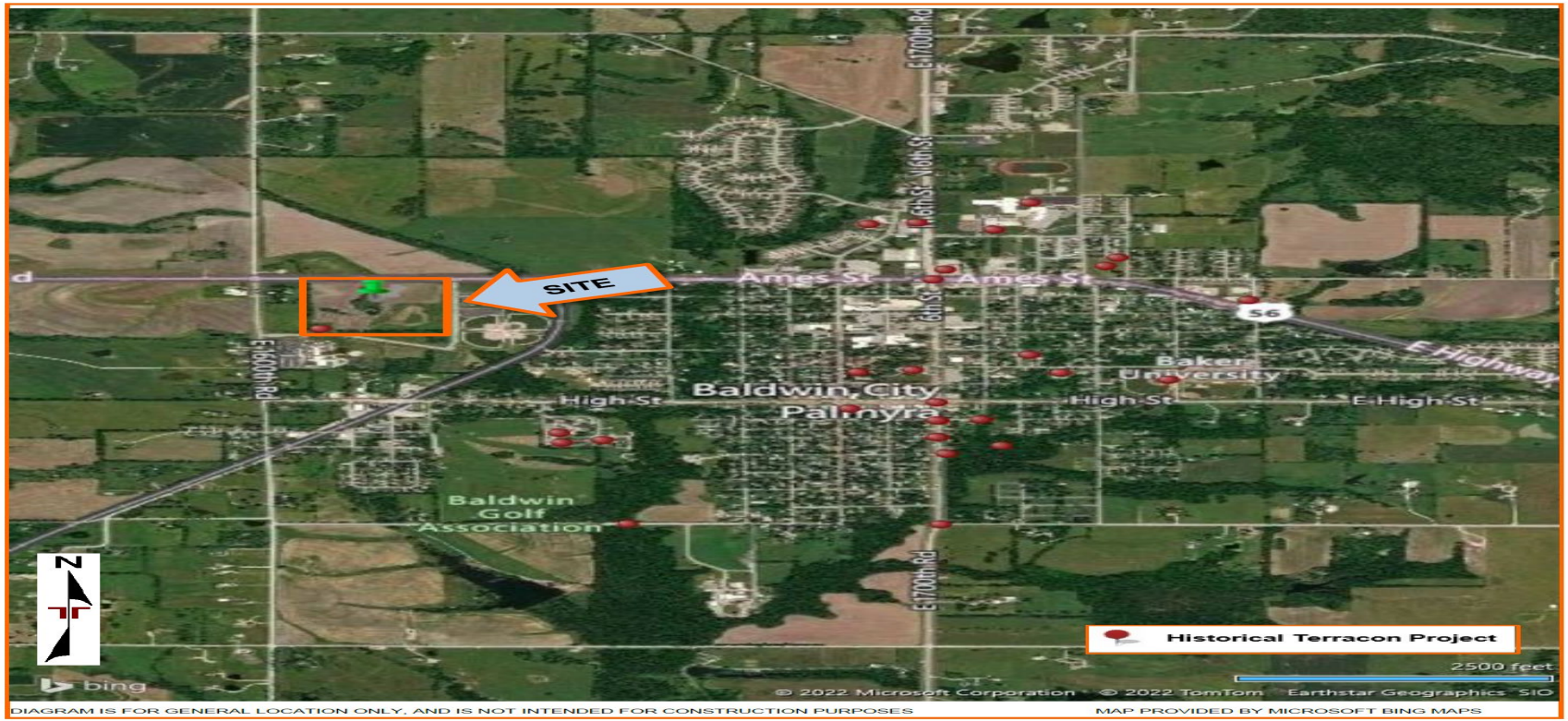
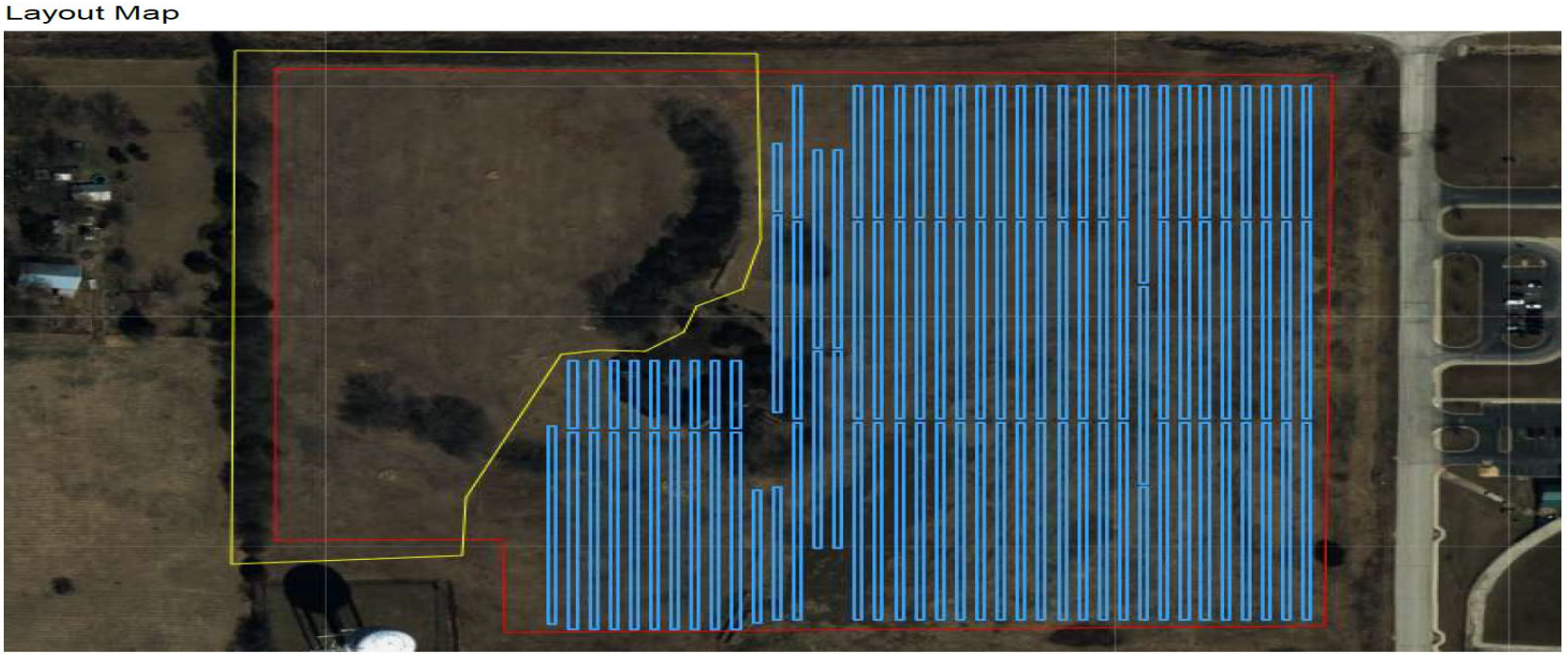


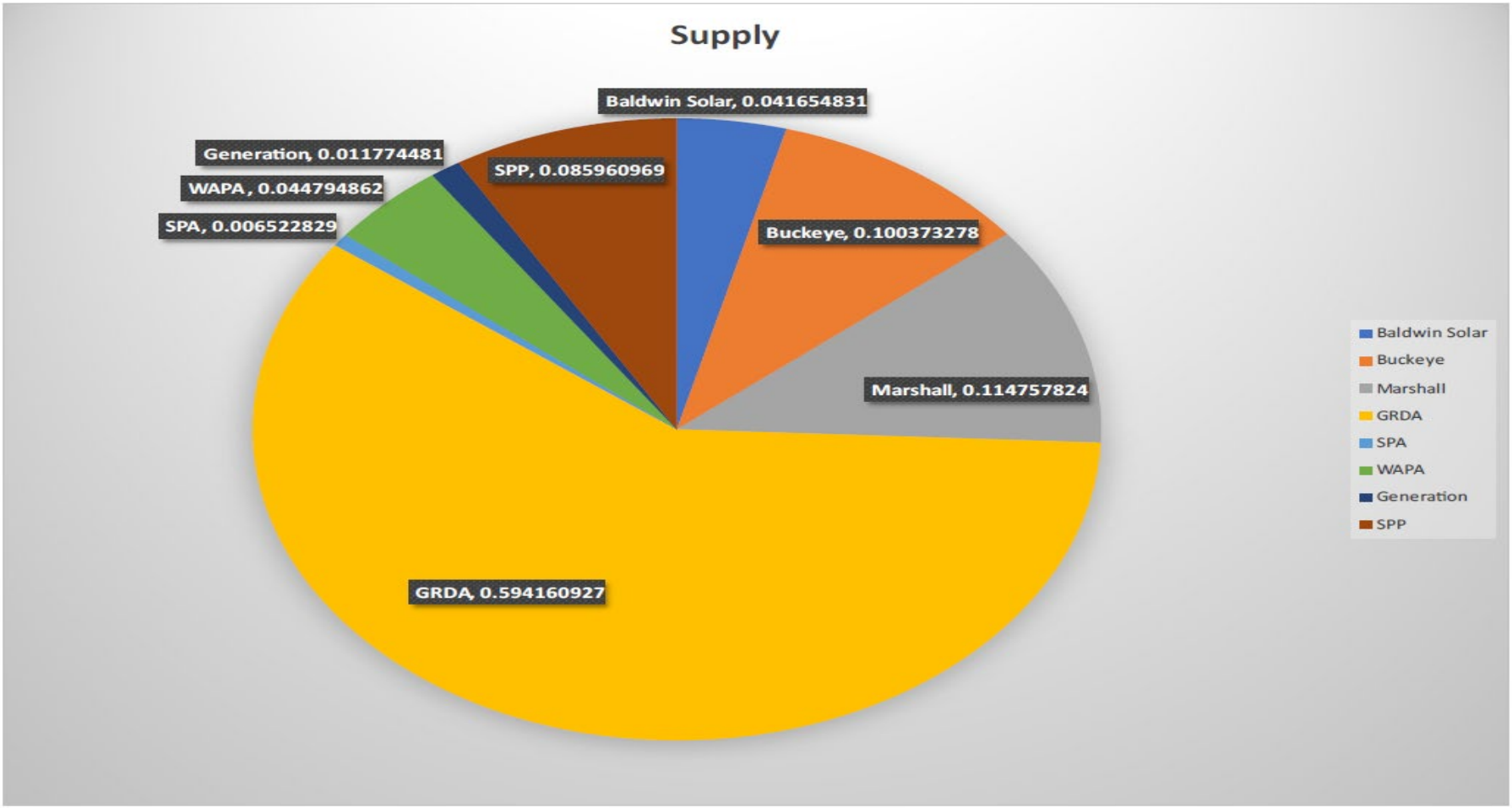
DIAGRAM IS FOR GENERAL LOCATION ONLY, AND IS NOT INTENDED FOR CONSTRUCTION PURPOSES

MAP PROVIDED BY MICROSOFT BING MAPS

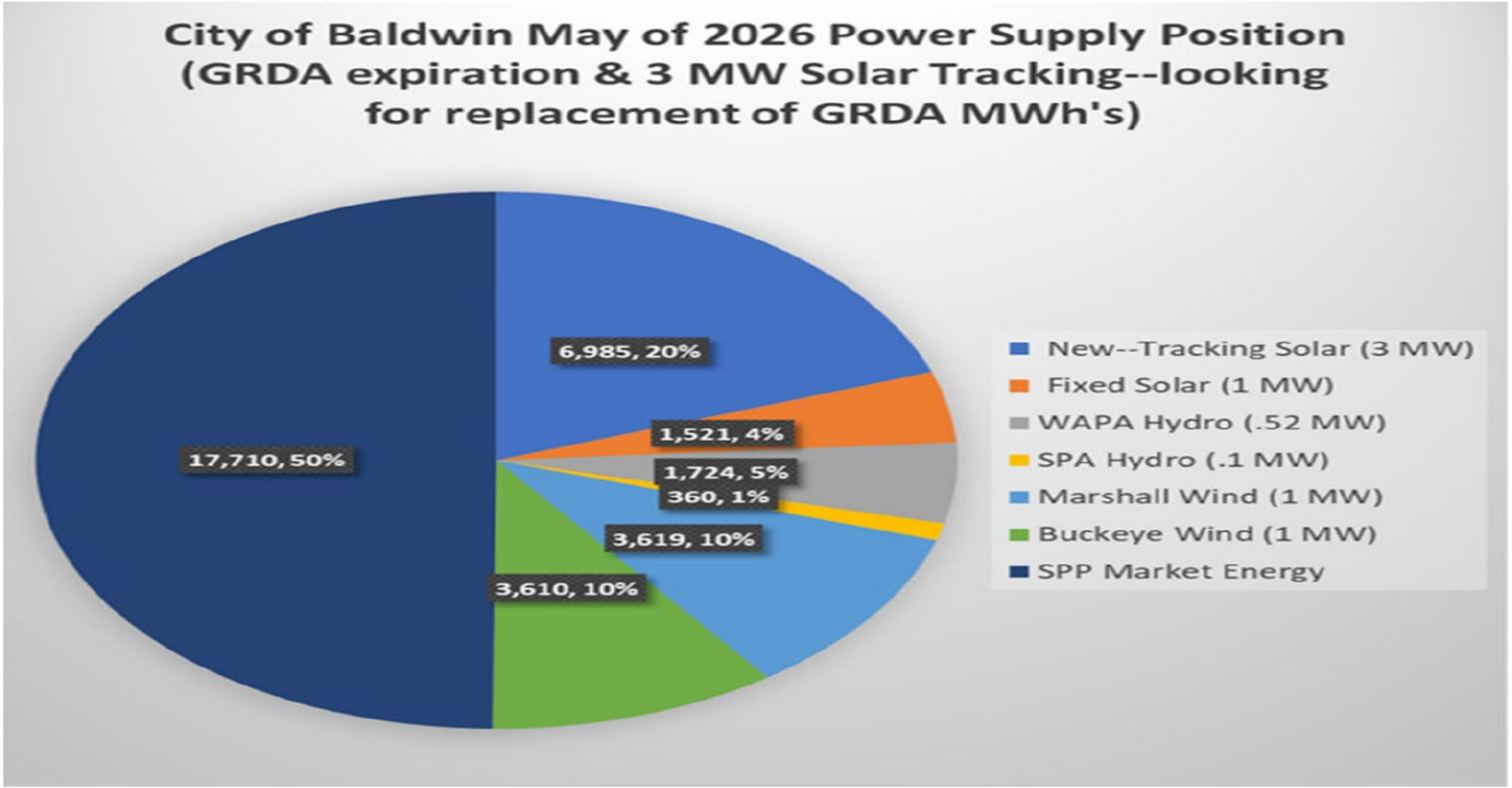
Baldwin City Solar II Layout



Baldwin City Current Power Supply Allocation



Baldwin City Power Supply 2026



Lessons Learned

- Test the market. Send out request for proposals and evaluate on the quality of the responses.
- Solar and storage technology changes rapidly.
- Federal incentives are making solar power more competitive every day.
- The debate over solar going forward is political and cultural and not economic or environmental.
- Planning commission meetings will become much more interesting in the future.