# Solar Request for Proposal Attachment A

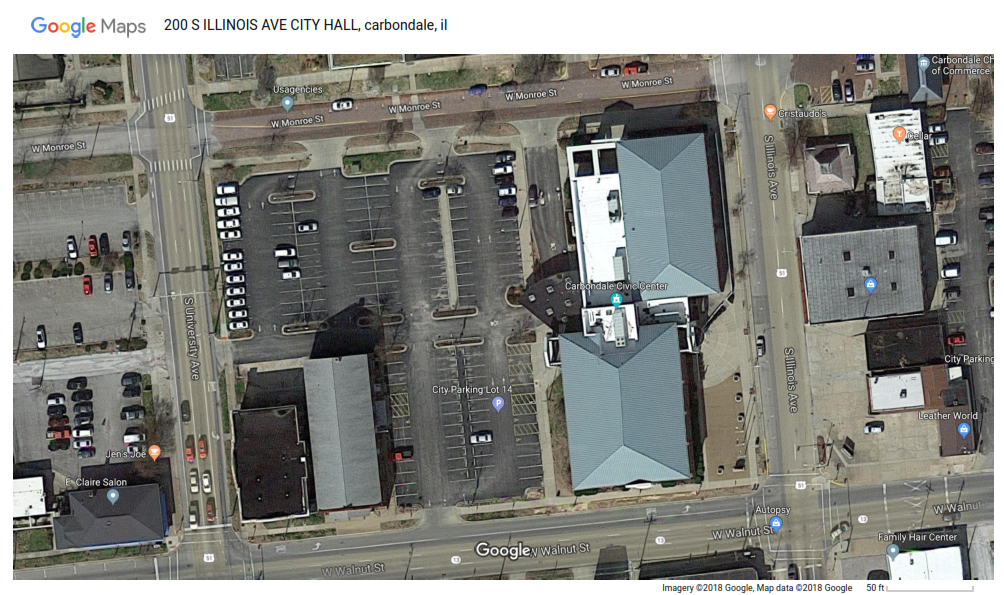
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# Site Information

**Civic Center – 200 S Illinois Ave, Carbondale, IL 62902**

Average Monthly Energy Use: 63,326 kWh

Average Monthly On Peak Demand: 174 kW



**24 Months of Usage and Demand History (Embedded PDF, double-click to open)**

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**Site Contacts**

Sean Henry

City of Carbondale

Public Works Director

[shenry@explorecarbondale.com](mailto:shenry@explorecarbondale.com)

(618) 457-3270

Robert Hardin

City of Carbondale

Maintenance & Environmental Services Manager

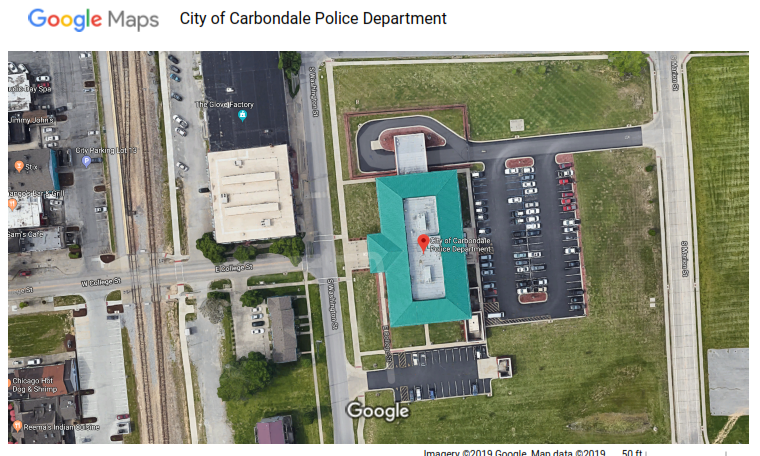
[rhardin@explorecarbondale.com](mailto:rhardin@explorecarbondale.com)

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**Public Safety Center – 501 S Washington St, Carbondale, IL 62901**

Average Monthly Energy Use: 41,480 kWh

Average Monthly On Peak Demand: 97 kW



**24 Months of Usage and Demand History (Embedded PDF, double-click to open)**

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**SE Waste Water Treatment Plant – 2201 East Walnut Street, Carbondale, IL 62091**

Average Monthly Energy Use: 132,732 kWh

Average Monthly On Peak Demand: 324 kW



**24 Months of Usage and Demand History (Embedded PDF, double-click to open)**

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**Maintenance/Environmental Services – 212 West Willow Street, Carbondale, IL 62901**

Average Monthly Energy Use: 1,050 kWh

Average Monthly On Peak Demand: N/A



**24 Months of Usage and Demand History (Embedded PDF, double-click to open)**

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# PVWatts Inputs

PVWatts is an online calculator for solar generation estimates. Provide energy generation estimates calculated with PVWatts with the proposal. PVWatts is available at:

<http://pvwatts.nrel.gov/pvwatts.php>

Use the following inputs or provide justification for alternate inputs.



Figure 1:PVWatts Opening Screen

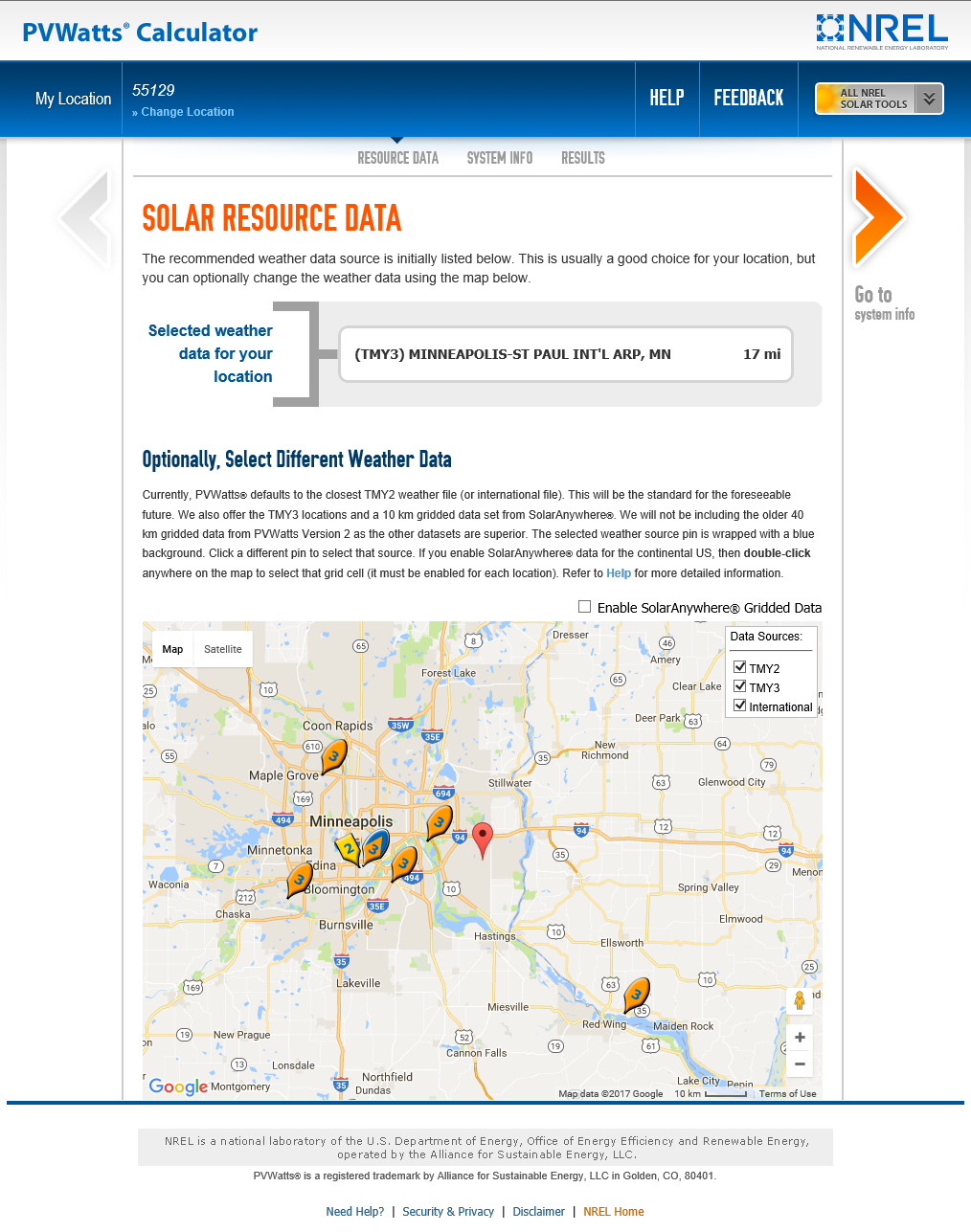
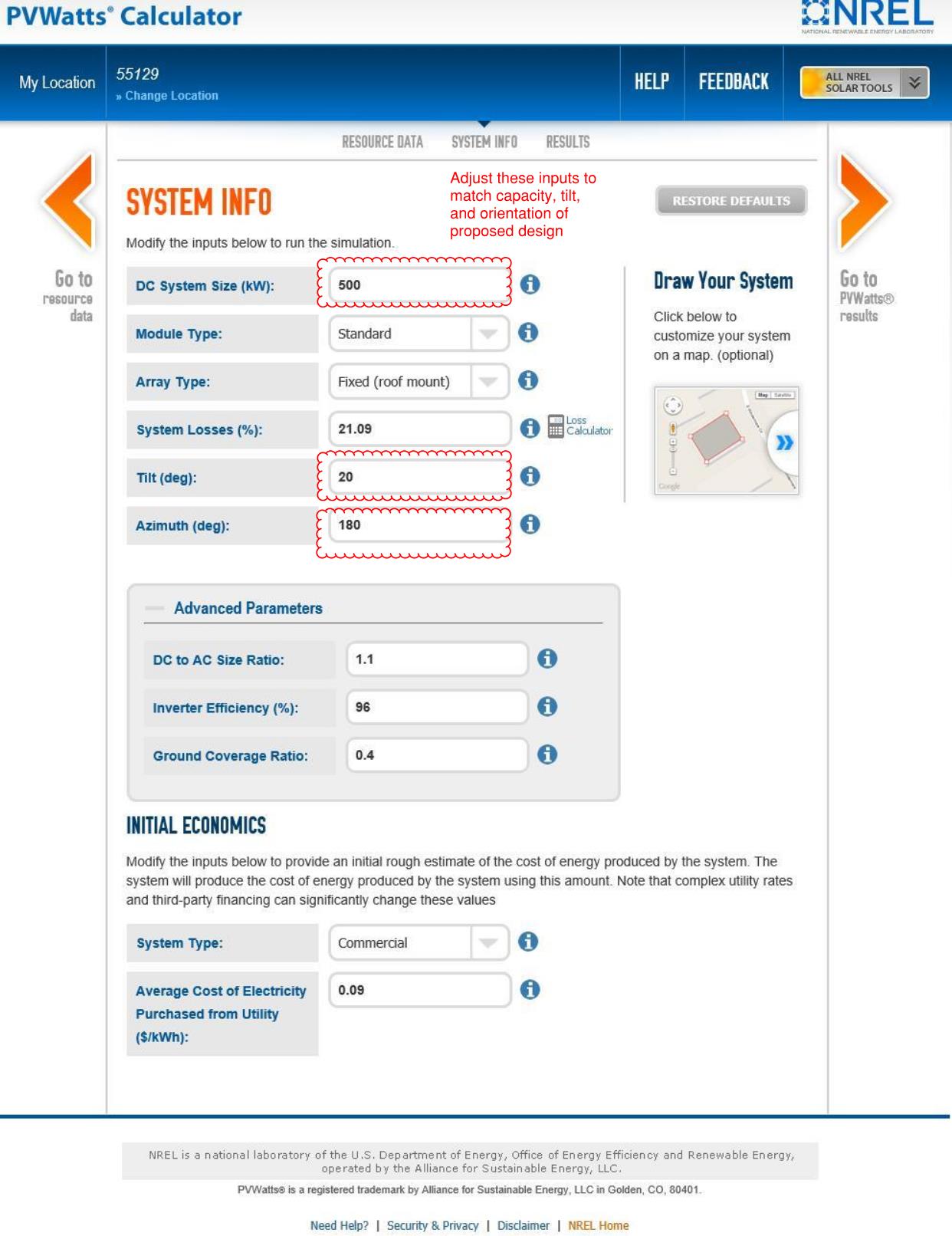


Figure 2: PVWatts Weather Data File Selection





In order to get an estimated system size in DC, multiply your maximum monthly kw demand from Figure 3 (which is in AC) by 1.3.

# Energy Generation Estimates

For each array, provide monthly anticipated kWh generation as shown in Figure 6.

In addition, review the hourly outputs to provide the maximum annual hourly generation (peak kW).

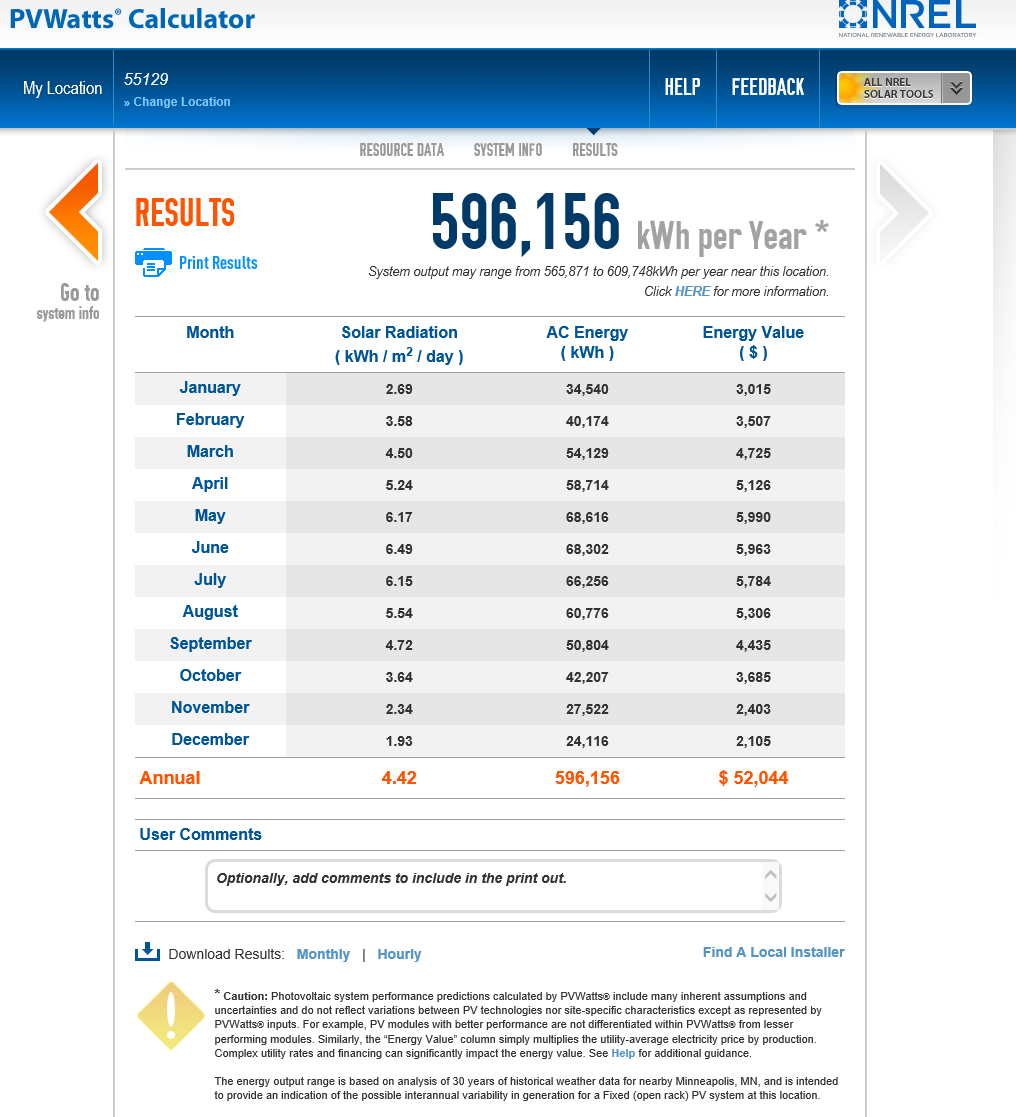


Figure 3: Generation Estimate for 500kW South Facing Array with 20 Degree Tilt

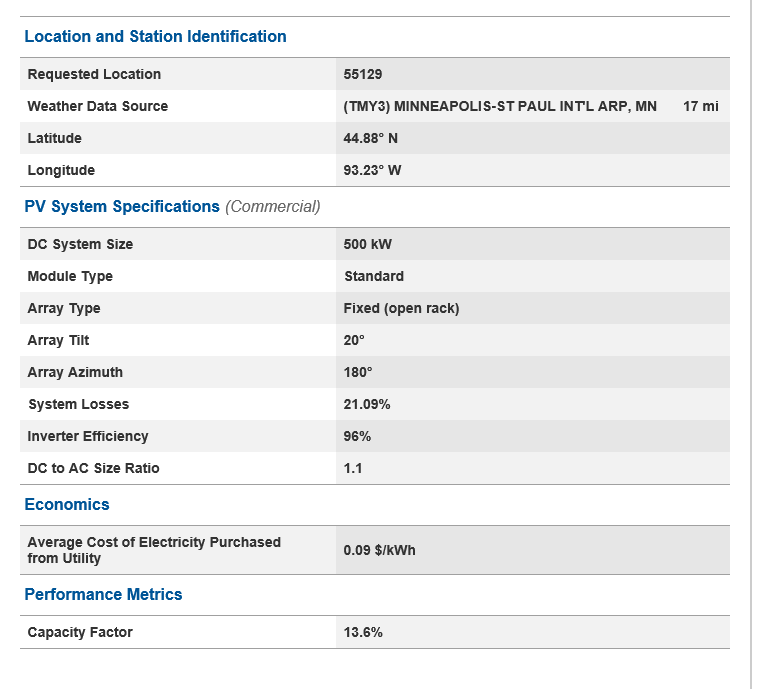


Figure 4: Input Summary for 500kW South Facing Array with 20 Degree Tilt

From the hourly output, the maximum hourly generation level in this example is **399.7 kW**