



**Purpose**

The Demirjian Park Stadium project (Demirjian Park) is seeking Renewable Energy Credits (RECs) from Facilities & Services Utilities & Energy Services Division (UES) for onsite solar production for the purpose of allocating the Renewable Energy Certificates (RECs) to the building and counting towards LEED certification Credits Renewable Energy Production and Green Power & Carbon Offsets. UES has sufficient onsite solar generation to provide all the RECs being requested.

**Onsite Solar Generation and Available RECs**

The University has a 54 acre solar array that is located at the corner of Curtis Road and First Street in Champaign and Savoy Illinois which is commonly referred to as Solar Farm 2.0. This system can produce the needed RECs. List below are the attributes of this system.

<b>System Size</b>	12,107 kW-dc
<b>Expected First Year Energy Production (MWh)</b>	20,256
<b>Guaranteed Minimum Energy Output (GME0-90%) (MWh)</b>	18,231
<b>Guaranteed Renewable Energy Credits in the first year</b>	18,231
<b>Structure</b>	Ground Mount
<b>Modules (Panels)</b>	Bifacial
<b>Annual Degradation factor</b>	.5%

**Total Building Cost Calculation and REC Offsets Required**

Annually, UES calculates the cost of utility services for the next fiscal year (July through June) and these rates are used to charge all customers. To calculate the total building energy cost the UES commodity rate needs to be multiplied by the estimated annual building usage. The annual cost calculation is shown in the table below.

Commodity	FY21 Rate	Estimated Annual Usage	Estimated Annual Cost
<b>Electricity (MWh)</b>	\$88.2/MWh	500 MWhs	\$44,100
<b>Natural Gas (therm)</b>	\$.495/therm	4,778 therms/140 MWhs	\$2,365
<b>Totals</b>		640 MWhs	\$46,465
<b>REC Offset (10%)</b>		64	\$4,647
<b>Solar Farm 2.0 %</b>		.35% of GME0	

**Conclusion**

As a result, the 64 RECs required for Demirjian Park represents .35% of the annual production of Solar Farm 2.0. UES has a standard memorandum of understanding that is signed by both parties to ensure the need RECs are provided for the term specified. To meet its obligations the Demirjian Park project under this MOU, UES specifically allocates .35% of the annual production of Solar Farm 2.0 to this project exclusively.

The information provided is accurate and complete to the best of my knowledge and understanding.

*E. Kamarah*

8/23/2022

Ehab Kamarah, Ph.D., P.Eng.

Date

Associate Vice Chancellor and Executive Director, Facilities & Services