

# SOLAR CARPORTS

The Dayton Regional  
**STEM**  
School

SWITCHING OUR SCHOOL TO RENEWABLE ENERGY

PREPARED FOR DAYTON REGIONAL STEM SCHOOL ADMINISTRATION

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# OVERVIEW

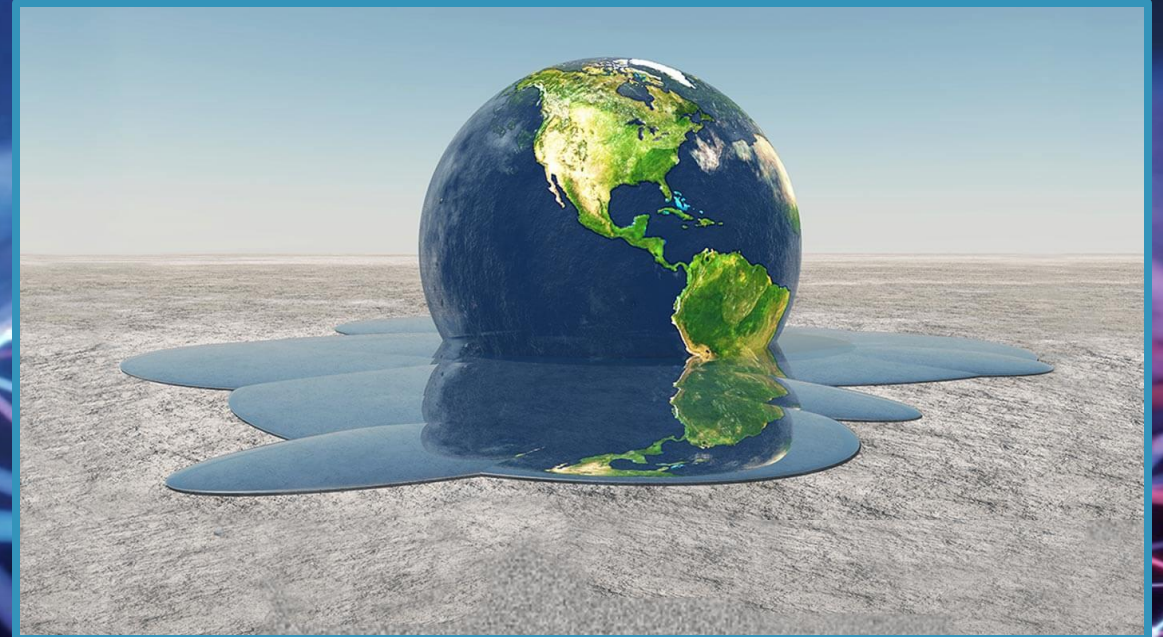
- Introductions
- Problem Statement
- Our Solution
  - Goals and Objectives
  - Methods
  - Next Steps
  - Evaluation
- Budget
  - Future Funding
- Analysis of Alternatives
- Conclusion



# INTRODUCTIONS



- Combat climate change
- Expands on the Zero Waste Initiative and sustainability
- Educational opportunities
- Solar tax credit

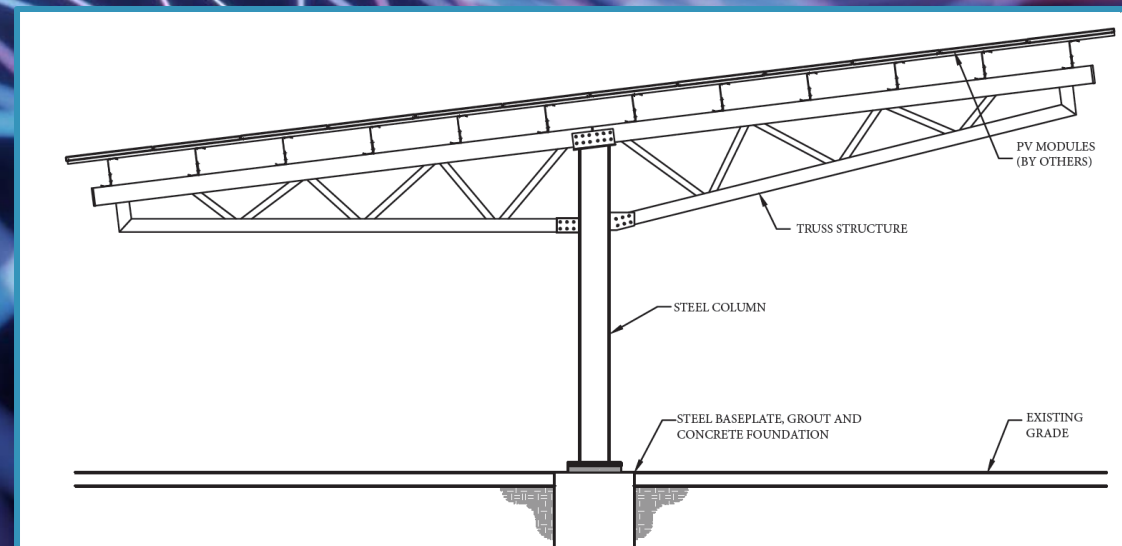


## PROBLEM STATEMENT

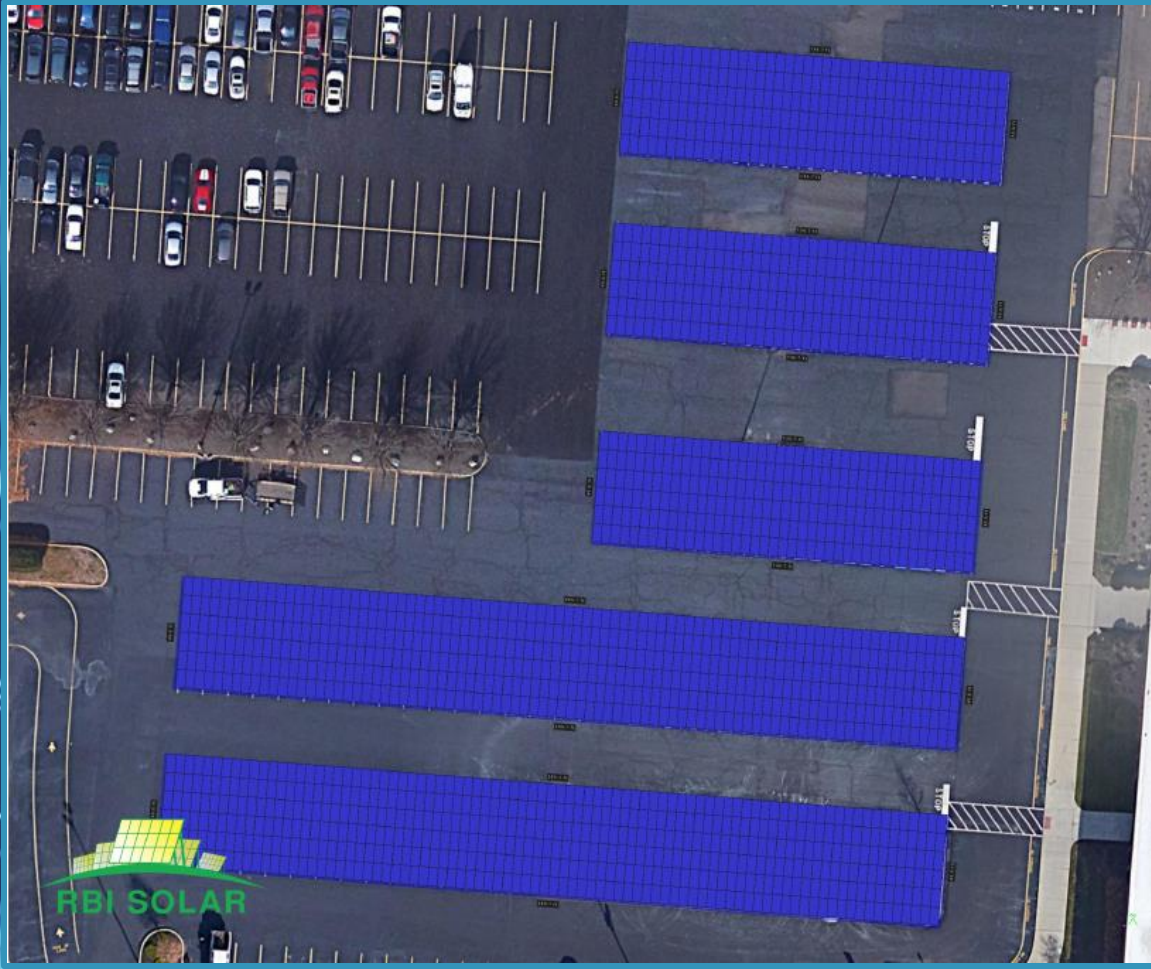




# OUR SOLUTION







# GOALS AND OBJECTIVES

# METHODS



- Interview administration
- Obtain proposal-critical information
  - Contact contractors
  - Determine feasibility
  - Find potential funding



## NEXT STEPS



- Secure funding
- Hire contractors
- Complete construction/installation
  - Begin using solar power



# EVALUATION



- Installation is successful
  - 100% solar power
  - Excess solar power
  - Proper maintenance
- Potential implementation in curricula

Category	Name	Overall Total
Inverters	Sunny Tripower_Core I 62-US-4I	
Home Runs	500 MCM (copper)	
Combiners	1 input Combiner	
Combiners	5 input Combiner	
Combiners	7 input Combiner	
Strings	10 AWG (Copper)	
Module	Hanwha Q CELLS, Q. Peak Duo L-G7.2 400W (400W)	
Field Segments	Field Segments I	
	Field Segments I (copy)	
	Field Segments I (copy 2)	
	Field Segments I (copy 3)	
		\$12,320

## BUDGET



- Our total cost includes a \$5,000 electrical cost. The final total is \$18,320 to build and install the solar panels.



# FUTURE FUNDING



- Ohio Department of Development
- \$200,000 for solar power in schools
  - Lawrence Foundation Grant
    - Given two times a year
    - Can be renewed yearly



# ANALYSIS OF ALTERNATIVES





## CONCLUSION



- Renewable energy
- Helps the school
- Climate change
- Budgetary benefits
- We are a STEM School