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The BIT's mini solar PV power plant Energy efficiency analysis

## **Relationships in the reduced ontology**

### **1. BIT PV Power Plant ↔ Components**

- The power plant is composed of various components (e.g., PV Panels, Batteries, Inverters).

### **2. BIT PV Power Plant ↔ Carbon Emissions**

- The plant contributes to reducing carbon emissions by replacing fossil fuel energy sources with solar power.

### **3. Carbon Emissions ↔ Un Sustainable Development Goals**

- The project directly aligns this the 13<sup>th</sup> United Nation Sustainable Development Goals for climate action

### **4. BIT PV Power Plant ↔ Environmental Conditions**

- External environmental factors impact the plant's energy production and efficiency.

### **5. Components ↔ Suppliers**

- Components are sourced from specific suppliers ensuring quality and compatibility.

### **6. Environmental Conditions ↔ Sensors**

- Sensors monitor environmental factors like temperature, irradiance, and wind speed.

### **7. Components ↔ Energy Losses**

- Energy losses occur at different stages of the system, requiring optimization of components.

