Grid-Tied Commercial System
Cox Communications Solar Power Installation in Phoenix, AZ

Alpha Energy partnered with regional parking structure installers and RMJ Electrical Contractors to build a series of turn-key solar shade parking structures for Cox Communications headquarters in Phoenix, AZ. The project was designed to cut Cox’s power demand and reduce energy expenses.

The 153kW grid-tied solar power system includes 900, 170W photovoltaic panels positioned across six parking structures protecting 75 parking spaces for Cox employees. The system generates more than 240,000kWh per year, which is roughly the amount required to power 17 homes. The resulting CO₂ offset of 289,000lbs. is equivalent to preventing the emissions of 24 cars annually.

The system is combined with a series of parking structures that provide basic parking protection from the elements. These structures also make the solar modules visible from the street to help demonstrate Cox Communications’ commitment to renewable energy.

One of the nation’s leading developers of turn-key photovoltaic systems for commercial, institutional and remote (off-grid) applications, Alpha Energy is recognized as a market innovator in packaging renewable energy technologies.

System Specifications

<table>
<thead>
<tr>
<th>Specification</th>
<th>Details</th>
</tr>
</thead>
<tbody>
<tr>
<td>System Power:</td>
<td>153kW</td>
</tr>
<tr>
<td>PV Array:</td>
<td>(900) 170W modules</td>
</tr>
<tr>
<td>Solar Inverter:</td>
<td>135W, 48VAC, 3PH INVTR</td>
</tr>
<tr>
<td>Solar Shade Structures:</td>
<td>6</td>
</tr>
<tr>
<td>Time Line:</td>
<td>&lt;3 months from ground-breaking to system commissioning</td>
</tr>
</tbody>
</table>

Solar Electricity Production

These estimates are based on thirty years of solar radiation data collected near Phoenix, AZ by the USA National Renewable Energy Laboratory. They represent long-term production estimates based on the size of the solar array, solar panel tilt and orientation. Actual production may vary, due to factors including, but not limited to, site-specific shading and solar panel temperature.
Progression Photos
Cox Communications Solar Power Installation in Phoenix, AZ

- Construction complete in less than three months
- Alpha coordinated all construction permitting and inspections
- Onsite project management
- Six new parking structures were installed
- Created 75 covered parking spaces for employees and customers
- Generates more than 240,000 kilowatt hours per year
- Required 900 PV Modules
- Installed night time lighting and cameras for increased security
- Visible from the street, highlighting a renewable energy commitment