

Solar Parasol at the Mesa Arts Center



City Council Presentation
September 2017

Solar Parasol



Project Summary

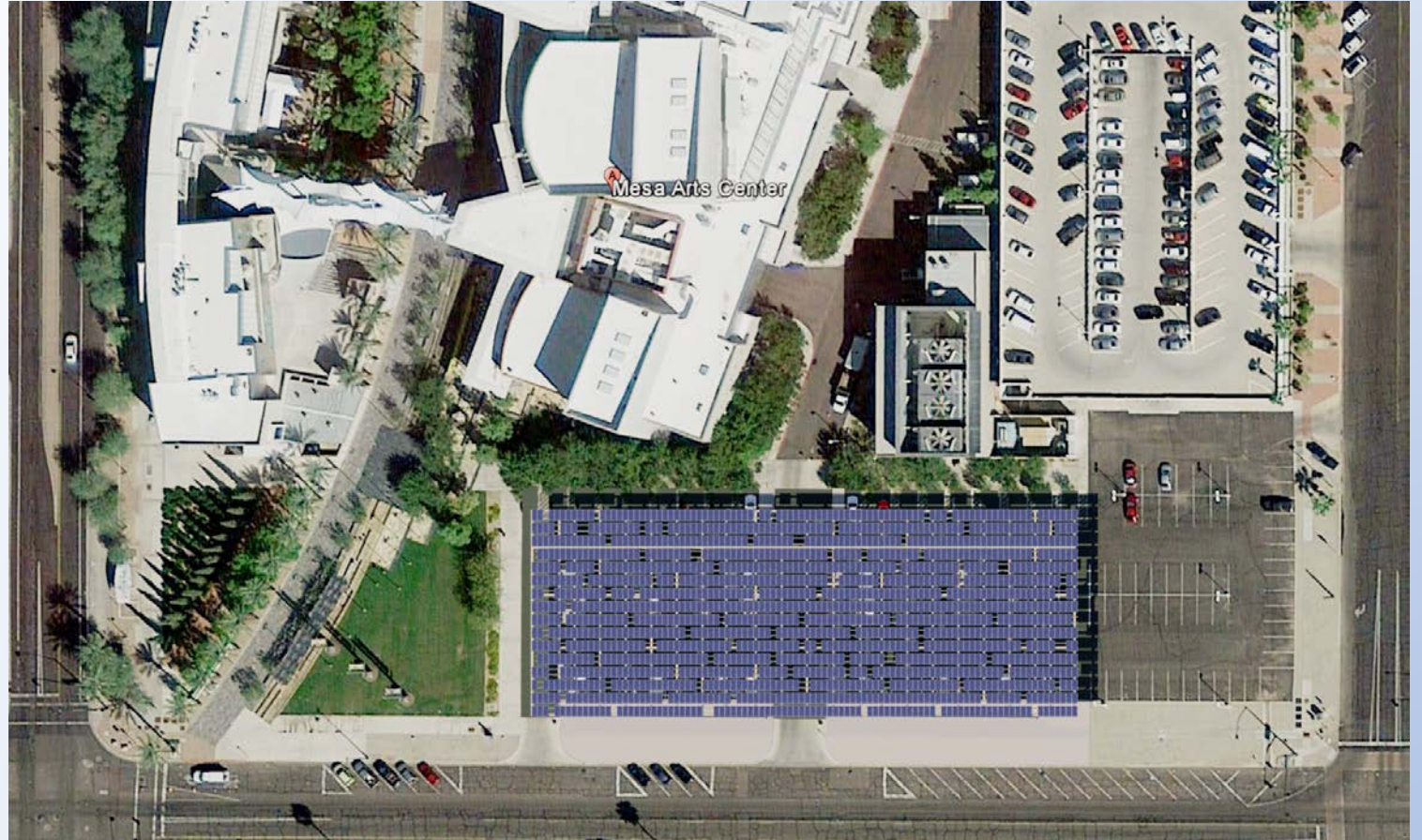
- 874,000 kWh Generated Annually
- Locally Generated Energy
- Adds to Energy Resources
Department's Green Portfolio & Local
Generation
- Part of the City's Energy Efficiency and
Renewable Energy Plan
- Reduces the City's Carbon Footprint
- Equivalent to 30% of MAC energy use



Project Summary

- Placemaking Element
- Community Benefit
- Shaded Event Space
- Shaded Parking Spaces
- Connection to 1st Ave

Support from Mesa Arts Center stakeholders



Energy Conservation/Renewable Energy Program



BEFORE



AFTER

- Annual Savings - Energy Efficiency Projects installed last year: \$80,720
 - *Eg: Northwest Water Reclamation Plant LED's*
- Annual Savings – Solar Energy Generated last year: \$48,270
 - *Eg: Fiesta Police Substation Solar*

Total Energy Efficiency Savings since 2009:
\$395,000

Energy Resources Supply Portfolio

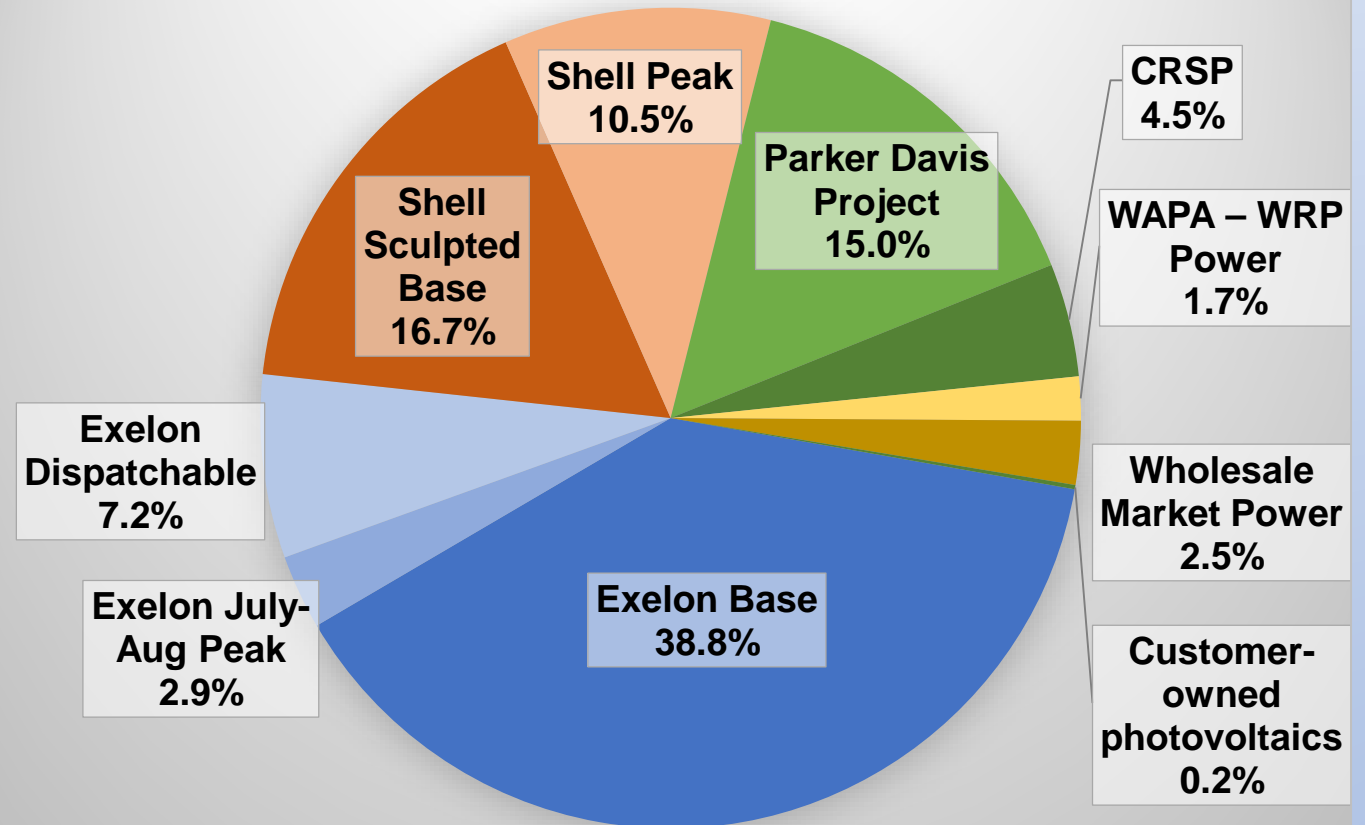
- Integrated Resource Planning: Long-term planning process used to identify and evaluate all resource options based on:
 - Costs
 - Reliability
 - Risks
 - Environmental stewardship
 - Customer feedback
- Energy Supply Procurement:
 - Competitive solicitations
 - Staged, diverse contracts
 - Access most liquid markets
 - Seek qualified, competitive counterparties

Energy Resources Supply Portfolio

Results: Balanced portfolio

- Avoids market price shock
- Encourages competition
- ~20% renewable
- Low cost, high reliability

City of Mesa Electric Supply Resources FY16/17



View from the Southwest





Power Purchase Agreement ("PPA")

- Competitive Solicitation (RFP) issued
- Contract w Ameresco to design, construct, own, operate, maintain the project & guarantee energy production
- City agrees to purchase energy produced at a set price
 - No price volatility - Budget certainty
- Mesa has 5 similar projects
- Construction Timeline is 2 – 3 months + Design & Review Time.



Funding

Solar Parasol

Power Purchase Agreement: \$128,000 Annual Cost

\$64,000 annual cost covered by
Interdepartmental Electric Energy Cost Adjustment
Factor

\$64,000 annual cost covered
Base Electric Energy Cost Adjustment Factor



Funding

Event Infrastructure & Aesthetics Upgrades

Arts and Cultural Fund

\$12,000 annual cost OR
\$322,577 up front cost



Next Steps

- Council Direction
- Negotiate Power Purchase Agreement (PPA)
- Council Approval of PPA
- Design and Construction

