



Nellis AFB, NV 'Sun Park' Photovoltaic Power Project

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AGENDA

- **PROJECT OVERVIEW**
- **TIMELINE TO DATE**
- **LESSONS LEARNED**
- **TAKE AWAYS**





Why PV - Why Nellis

- Support renewable energy goals
 - Energy Policy Act of 2005 - 7.5% by 2013
 - DoD goal - 25% by 2025
- DoD study identified Nellis as ideal PV site
- Nevada has most aggressive renewable energy laws in the U.S.
 - 15% of all electricity must be renewable by 2013
 - Created strong market for Renewable Energy Credits
- Unsolicited interest from multiple developers





Project Objectives

- All power produced will be used by Nellis AFB
- Power output directly connection to base grid
- Developer:
 - Designs, finances, builds, and operates the PV array
 - Sells PV power to Nellis at proposed price/escalation
- Nellis AFB:
 - Signs indefinite utility purchase contract with developer
 - May cancel with one year notification
 - Provides land for PV array via a ground lease



Guiding Principal

Barrow's Theorem

Every project is built upon the three basic 'pillars'

- Engineering (easy for engineers)
- Economics (not too hard)
- Politics (real hard for engineers)





Project Team

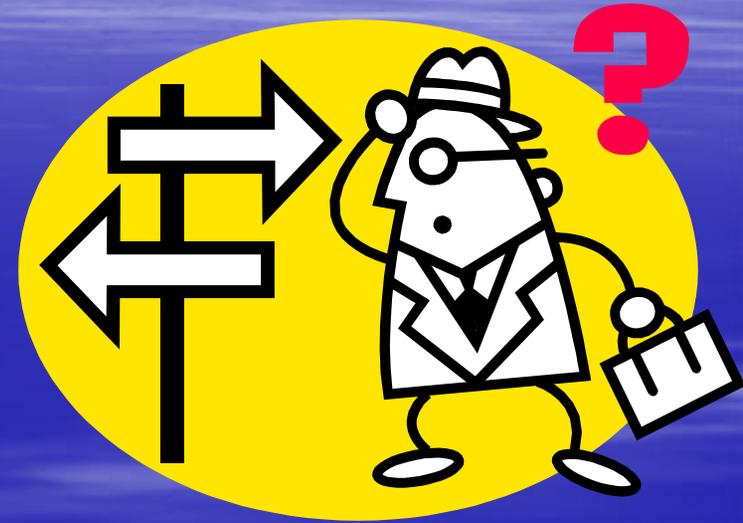
- **Small dedicated core team**
 - Flexible
 - Quick reaction
 - Increased feeling of ownership / empowerment
- **Required core expertise:**
 - Contracting
 - Technical
 - Legal
 - Economics





Contracting Strategy

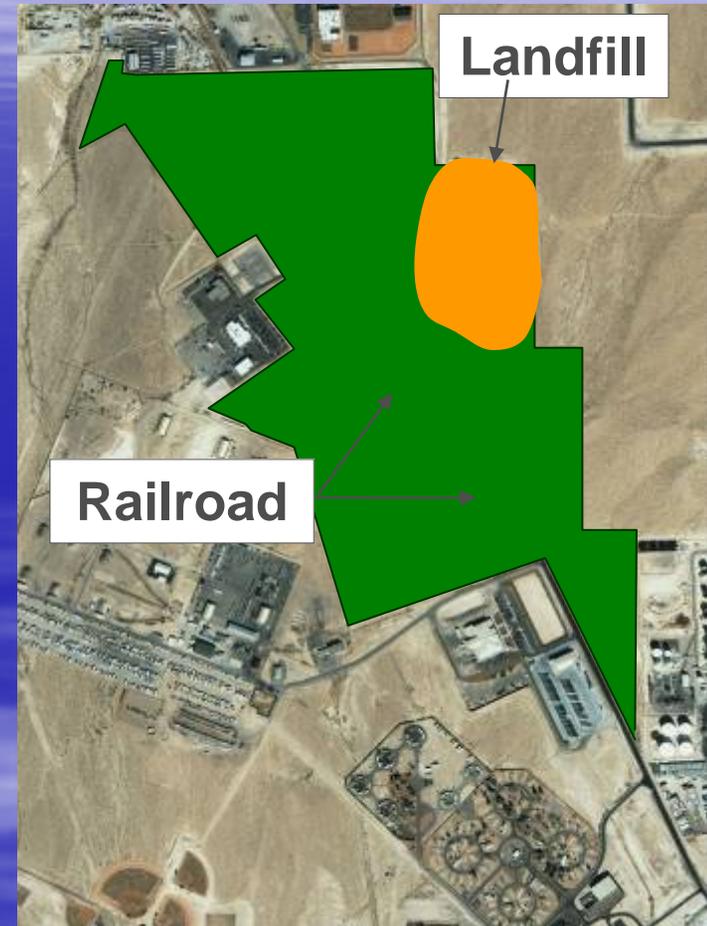
- Potential contract vehicles
 - ESPC/UESC
 - EUL
 - Utility Purchase
 - IFB
- Funding Sources considered
 - Third party
 - Power purchase
 - Capital investment



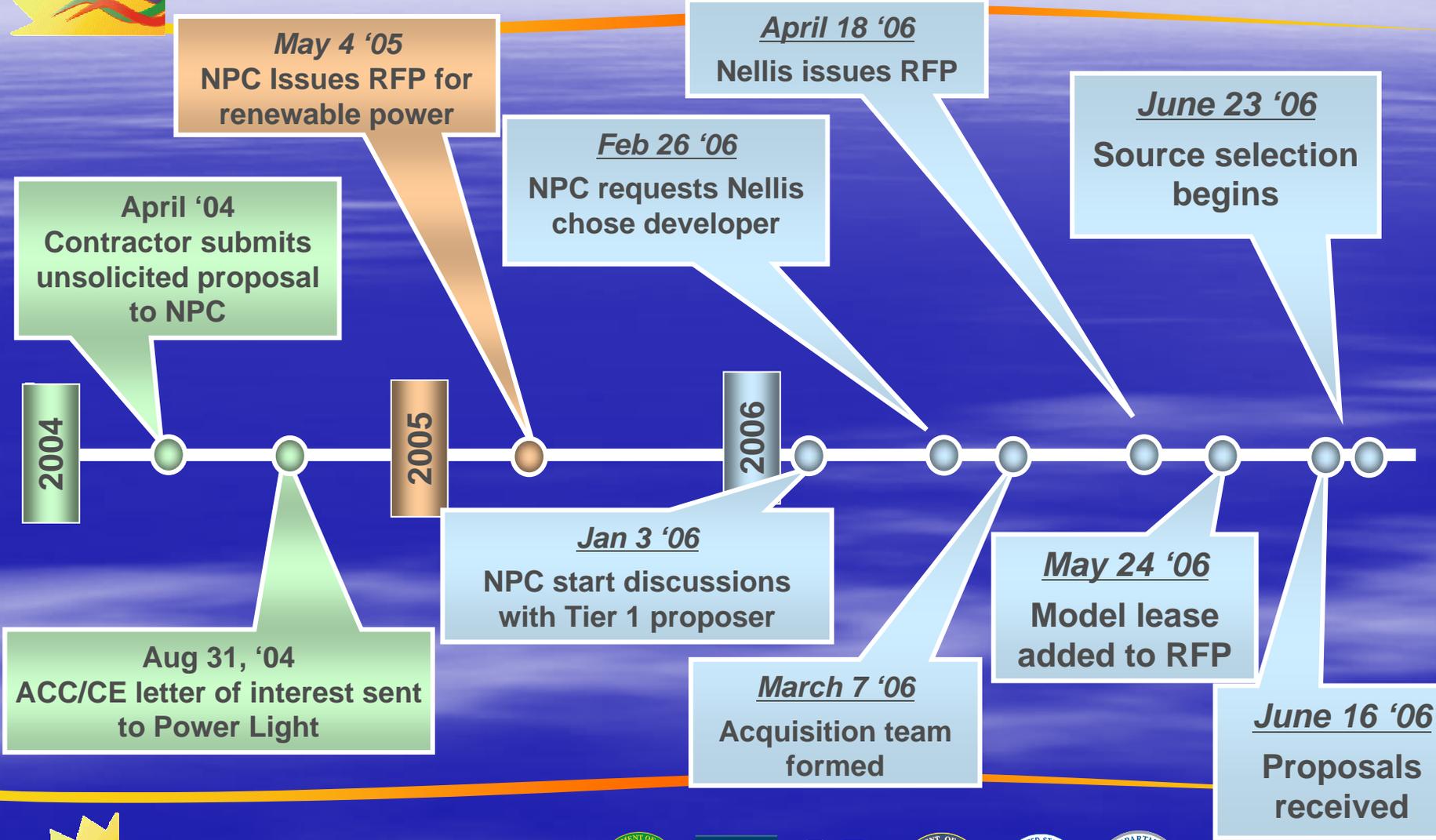


Project Site

- 140 acres on Nellis AFB
 - Desert land
 - Among military facilities
 - Includes 45 acre landfill
 - Adjacent industrial area



TIMELINE OF EVENTS





Selection Strategy

- **Selection options**

- **Best Value**

- Subjective, protest may be more difficult to defend
 - More flexibility in selection
 - Not necessarily lowest cost

- **Low Bid**

- Objective, higher risk of performance problems

- **Technically Acceptable Low Bid**

- Good compromise, low risk of poor contractor, lower protest risk, best price



Selection Organization

- Separate organization and management chain of command
- Sole purpose is to accomplish proposal evaluations in accordance with RFP
- Consists of a source-selection authority and evaluation team

Selection Organization

Source Selection Authority

Source Selection Evaluation Team

Source Selection Evaluation Chairman

Technical Team
(Mission Requirements)

Past Performance
Team

Pricing Team

Advisors



Technical Evaluation

Technically Acceptability Phase

▪ Subjective phase

- Marginal proposals have opportunity to become acceptable
- Eliminate clearly unacceptable proposals from competitive range
- Final competitive range compete in price phase

* Note – no offerors were excluded from price competition



Technical Evaluation

- **Mission Requirements - Demonstrate a definitive plan to meet requirements**
 - Performance Plan
 - Financial Capability
 - Implementation Plan
 - Quality Management Plan
- **Past Performance - Demonstrate successful past performance on like/similar projects**
- **Price – Demonstrate price realism/reasonability**
- **All three factors are of equal importance**

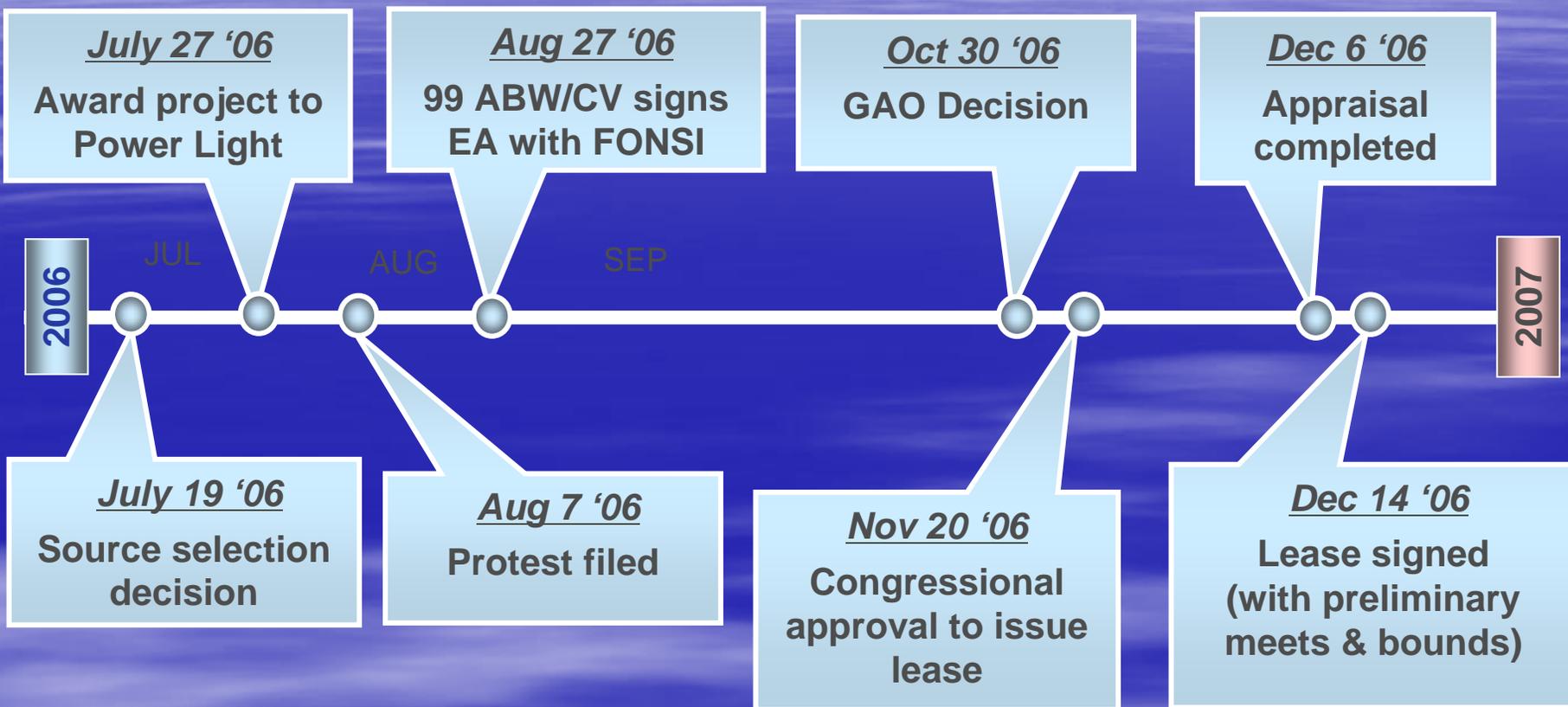


Price Comparison

Price competition phase

- Objective phase
 - Single cost value computed for each proposal
 - Present value of costs for PV power using:
 - Cost per kwh a bid in proposal
 - Annual escalation factor as bid in proposal
 - Discount factor from OMB Circular A-94
- Successful offeror is lowest price bid from competitive range

TIMELINE OF EVENTS





Evaluation Results

- Three proposals received
- Single round of clarifications took place
- All proposals placed in the competitive range
- Technical and past performance evaluations completed before pricing disclosed to technical evaluation and past performance team members
- Present value costs were then computed

Power Light offered lowest present value price



Protest

- Protest filed on 7 Aug 2006
- Basis of protest:
 - Offered prices hinged on sale of renewable energy credits (RECs) to Nevada Power
 - Only one proposer could support it's REC price assumptions due to it 'tier I' status from previous negotiations with Nevada Power
 - Therefore basis of Power Light's price wasn't realistic





GAO Decision

- GAO did not concur with protester's arguments
- However, protest was sustained
- GAO interpreted wording in winning proposal as a potential "contingency"



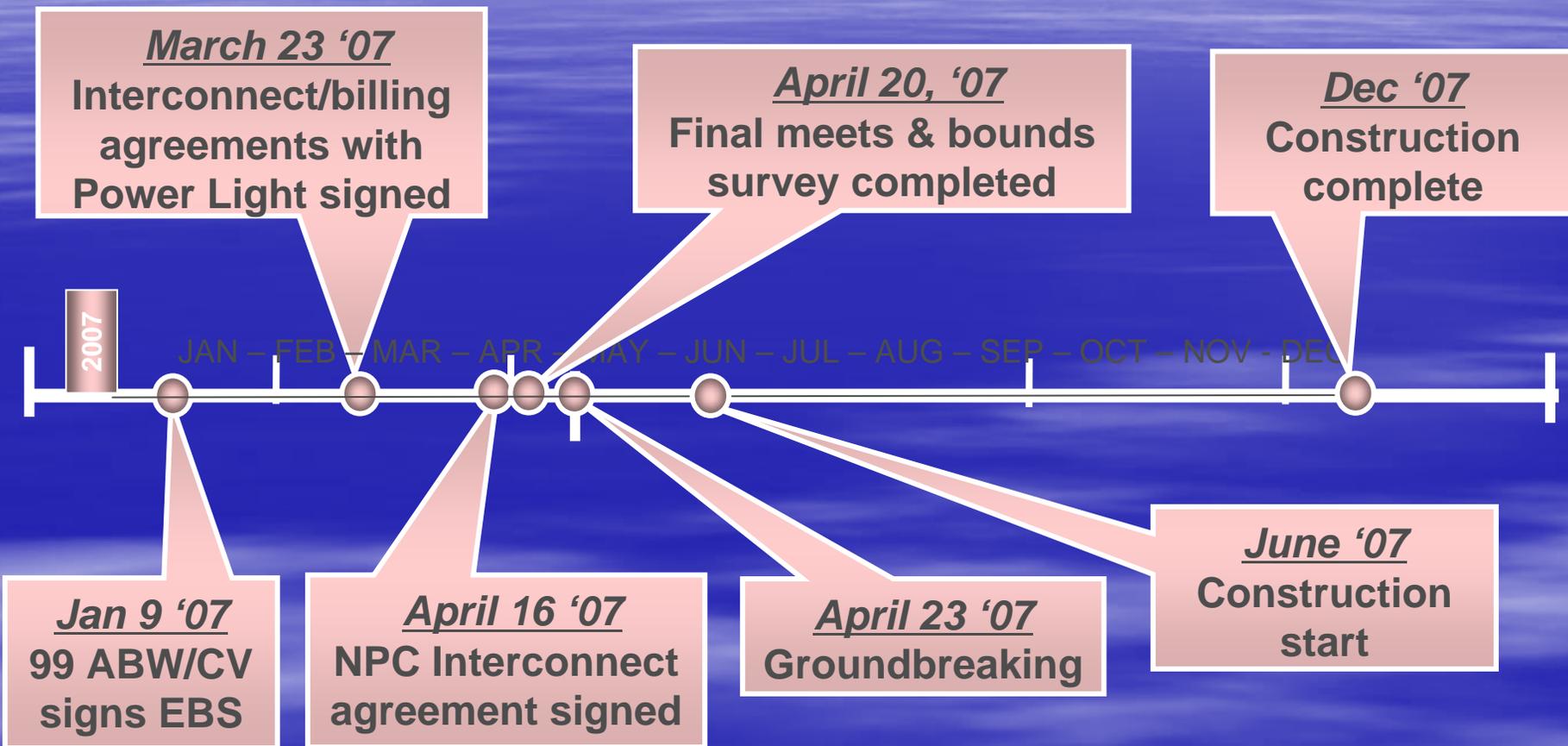


GAO Remedy

- Reopening discussions with all offerors to clarify potential contingencies
- Request for price clarification
- All offerors confirmed no contingency
 - Protesting offeror lowered it's proposed price
 - Power Light remained the low price offeror by a significant margin



TIMELINE OF EVENTS





Groundbreaking Ceremony

- Aug 23, 2007
- Attended by over 200 guests, dignitaries, and speakers





PV Construction

- Initial construction includes installation of concrete bases for the PV panel structure
 - Three days work shown below





PV Construction

Place holder for future photos



PROJECT SUMMARY

- **Largest PV array in Americas**
 - 14.2MW peak output
 - Supplies 25% of base electricity
- **Constructed by Powerlight Co.**
- **Financed by MunieMae**
- **Nevada Power to purchase RECs**
 - Critical to economic viability
- **20 year land lease on 140 acre site**
- **Aggressive construction schedule**
 - Start in June 07, Complete by December 07





LESSONS LEARNED

- **Competitive RFP solicitation**
 - Insures least cost for the AF and
 - Minimizes potential for protest
- **Indefinite term utility contract**
 - Can be approved and awarded at base level
 - Long term lease provides stability required by investors
- **Small dedicated core team (5-8 people)**
 - Establish direct, frequent communication
 - Conduct meetings at major milestones
 - Streamlines RFP development and evaluation process



LESSONS LEARNED

- Secure leadership support up front
- Involve all stakeholders from the start
 - Real property, contracting, legal, environmental, engineering, security, etc
- Include model interconnect agreements in RFP
- Clearly rank proposals in order and document
 - Document non-conforming proposals
 - Provides additional support in case of a protest
- Formalize business case for leadership





LESSONS LEARNED

- Review proposals for stated or implied contingencies and ensure they are eliminated
- Secure funding for EA, EBS, legal survey, and land appraisal before the project moves forward
 - Complete these tasks early to avoid delays
- Clearly define calculation for “low bid” in RFP
 - Base the calculation on life cycle cost



LESSONS LEARNED

- **Establish primary and alternate representatives for all stakeholders**
 - Insures continuity as primary members may not always be available
- **Ensure functional experts are readily available**
 - Ensure quick responses to proposer questions
- **Educate construction inspectors about unique requirements for contract vehicle used**
 - Many normal construction requirements do not apply



TAKE AWAYS

- Find win-win opportunities
- Form dedicated core action team
- Compete the contract

Think Big!



Questions?



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