

# Hopi Wind Project

**HCAPP (*Hopi Clean Air Project*) staff**

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*&*

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# **Feasibility Study for a Hopi Utility-Scale Wind Project**



# MET at Hopi

12.5 miles north east of Hotevilla Village

50 meter MET tower collecting data from  
the wind



# Wind Energy Can Benefit The Hopi Tribe

## ◆ New Economic Development

- *Electricity export sales create new revenues for Hopi (lease royalties and equity return on investment).*
- *Potentially fund rural electrification and smaller off-grid renewable applications*
- *Contracting work in development and construction phases*
- *New jobs for Hopi*

## ◆ Environmental

- *No air pollution or toxic emissions*
- *Virtually no water use*
- *Low land impact, no solid waste*
- *Compatible with existing grazing/other land uses*

## ◆ Capacity Building

- *New business models*
- *Develop tribal human resources for the Hopi Tribe: jobs, training, experience in high-tech renewable energy industry*



# PROJECT HISTORY

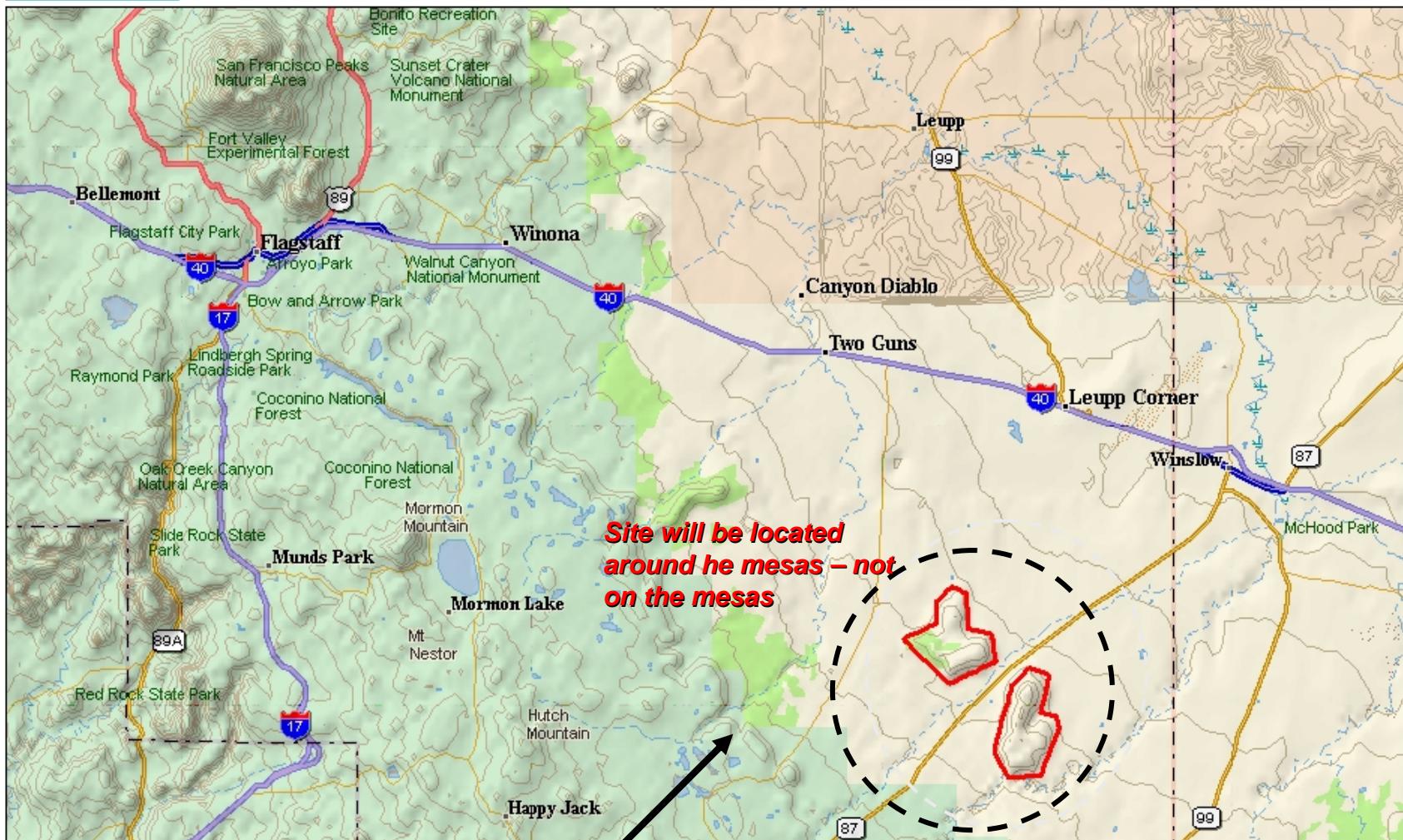
- Hopi interest in diversifying economy and promoting economic development with clean, sustainable businesses
  - DOE TEP first steps grant identify energy opportunities including utility-scale wind power project development
- Based on strong working relationship, Hopi and foresight identified new project site Sunset Mountain, entirely on Hopi lands
  - Partnered with DOE support to explore the feasibility of a 100MW wind project on the surrounding lower areas of east and west Sunset Mountain.
  - Project feasibility work delayed due to non-compliance requirements (no contract)
  - Exploring possibilities on surrounding areas around the two mesas, but if project goes forward, would likely be in the areas surrounding the North & South areas of the mesas.



# •Sunset Project Site



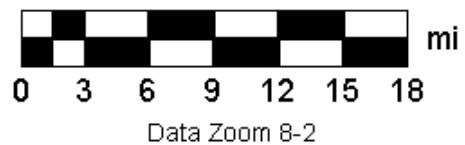
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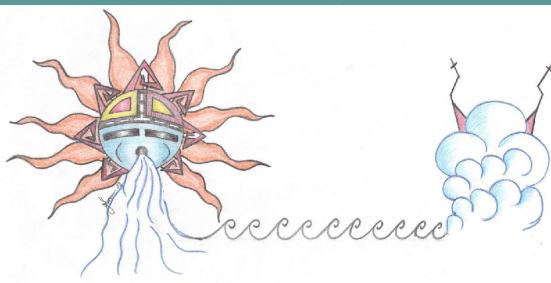
## Progress Date

- ◆ Wind resource assessment
  - 50m and 60m MET towers will be installed in relocated sites
- ◆ State renewable energy market assessment
  - AZ Corp. commission has voted to increase state's renewable energy requirement from 1.1% by 2006 to 15% by 2025
- ◆ Transmission Studies underway
  - Project is in APS queue for electrical interconnection
  - APS is now carrying out System impact Study for the Project  
*(These studies have been done, just waiting for the reports)*
- ◆ Environmental / Land Assessment started
  - Phase I biological, need to re-establish survey due to relocation on tower site
  - Hopi is managing third party studies, Hopi specialist are carrying out on-site survey work and lending their expertise



# ACTIVITIES STILL TO COMPLETE

- ◆ **Wind resource assessment (install ass't 50m and 60m)**
  - County permits secured, installed planned Fall/Winter '05
  - Prove out wind resource and undertake micro-siting
- ◆ **Continue and expand environmental and Land Assessments**
  - On-site Biological and Avian Survey Work (carried out by Hopi Dept. of Nat. Resources)
  - Archeological, Cultural, & Historical Studies (by Hopi Cultural Preservation Office)
  - Aviation and military safety review (3<sup>rd</sup> party)
  - Preliminary site construction access and geology review (3<sup>rd</sup> party)
- ◆ **Conduct a environmental, economic and cultural benefits assessment**
  - Continue with professional development and capacity building efforts
  - Conduct community awareness outreach – Hopi
- ◆ **Economic Model and Business Structuring**
  - Develop initial financial model and economic pro-forma for the project
  - Establish a suitable legal and business structure under which the Hopi can effectively pursue development of the project
  - Develop a financing option plan and conduct preliminary meetings industry financiers

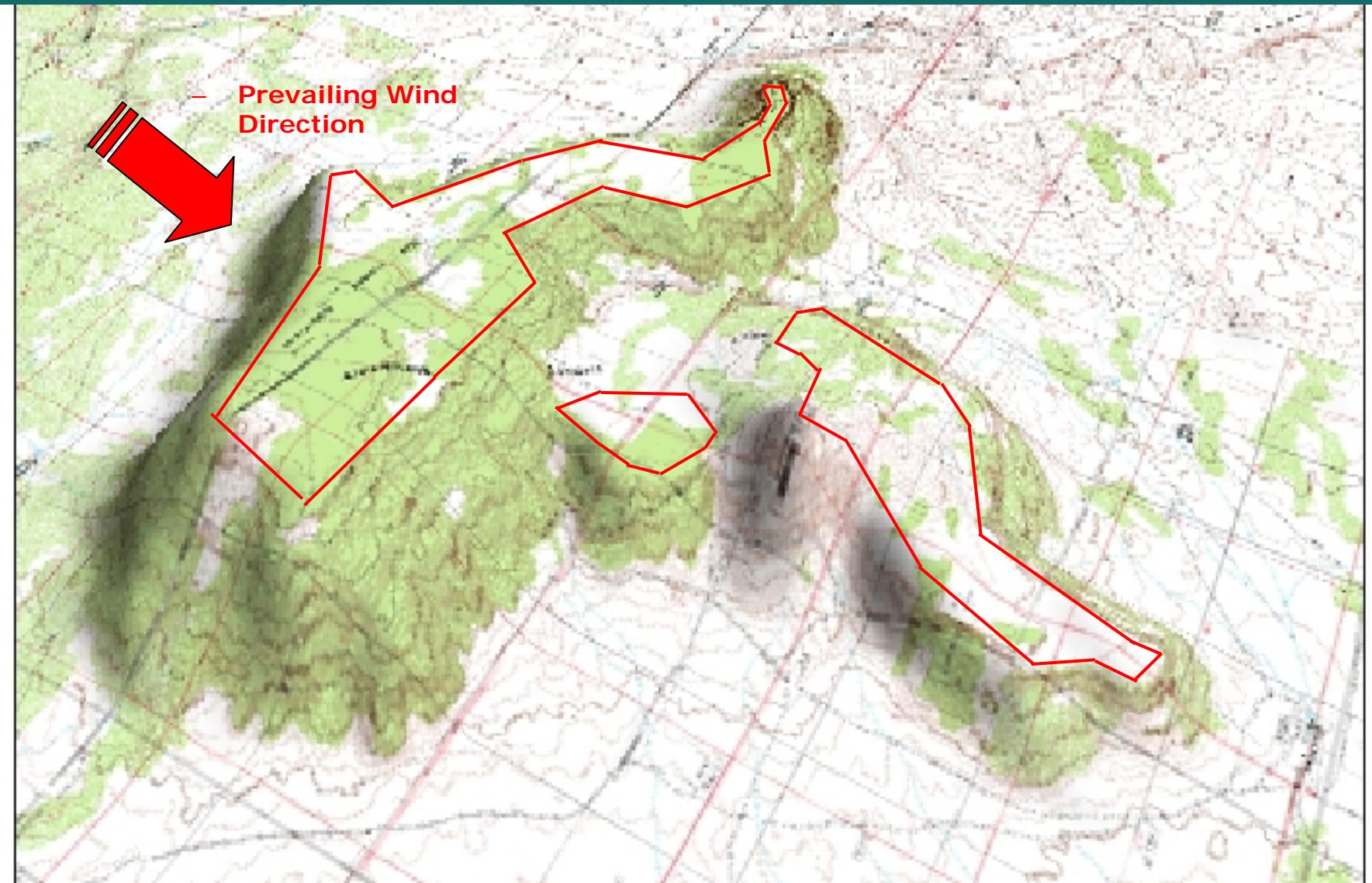


# FORESIGHT BACKGROUND

- ◆ **Foresight Energy Company** – experienced renewable energy consulting group founded in 1996, excellent technology, project development, power marketing, analysis and policy skills
- ◆ **Foresight Wind Energy, LLC** formed in 2002 to directly pursue wind project development
  - ◆ ***Focus:*** top utility industry expertise focused on tribal & private wind opportunities
  - ◆ ***Region:*** Southwest market
  - ◆ ***Relationships:*** utilities, state & local governments, landowners, and tribes
  - ◆ ***Projects:*** Over 1000 MW of wind projects under development
  - ◆ ***Financial backing:*** in 2005, secured support of \$75 million green energy fund

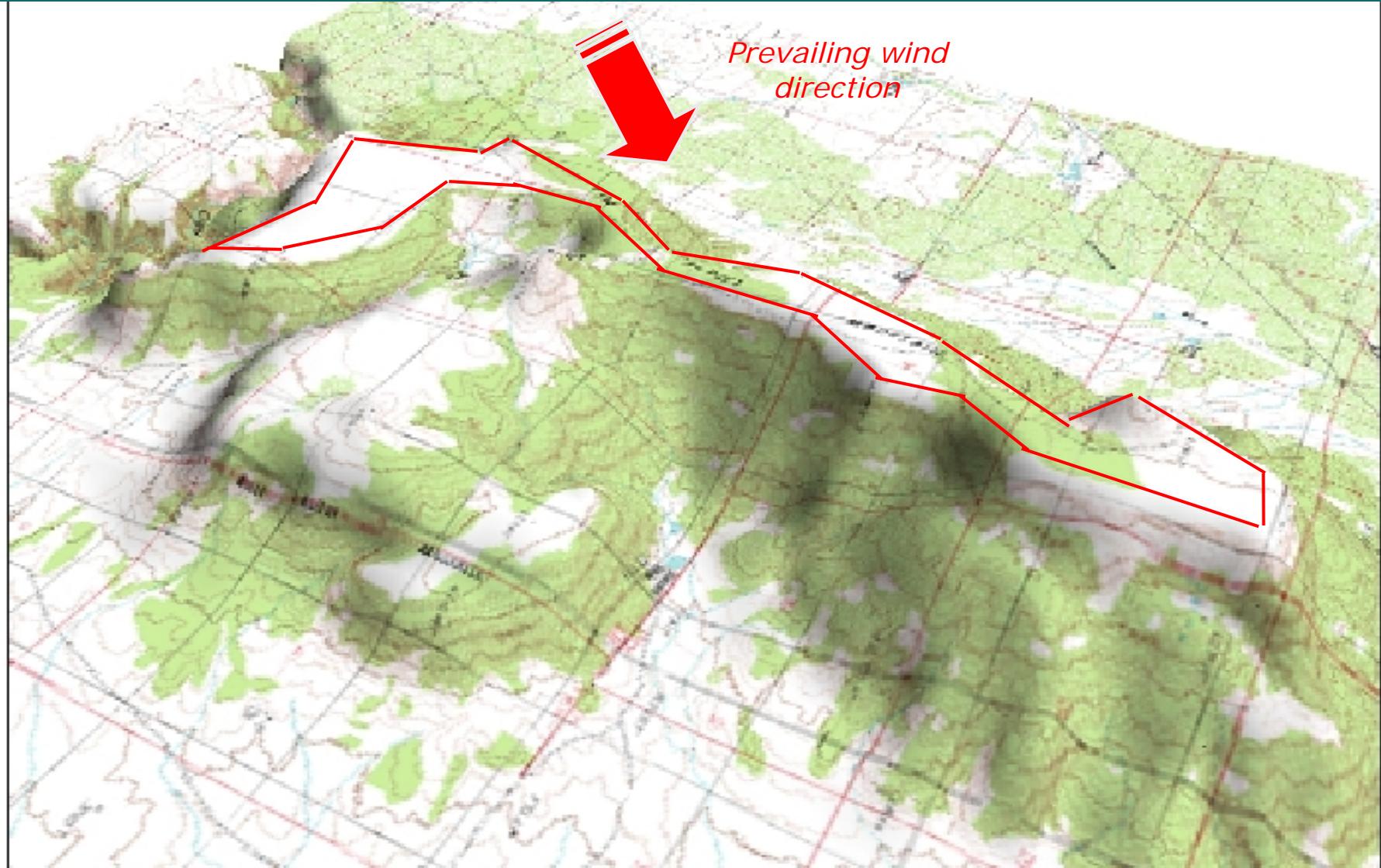


## WEST SUNSET MOUNTAIN



Projected MET towers will be erected in areas surrounding the North and South mesas and NOT on the mesas

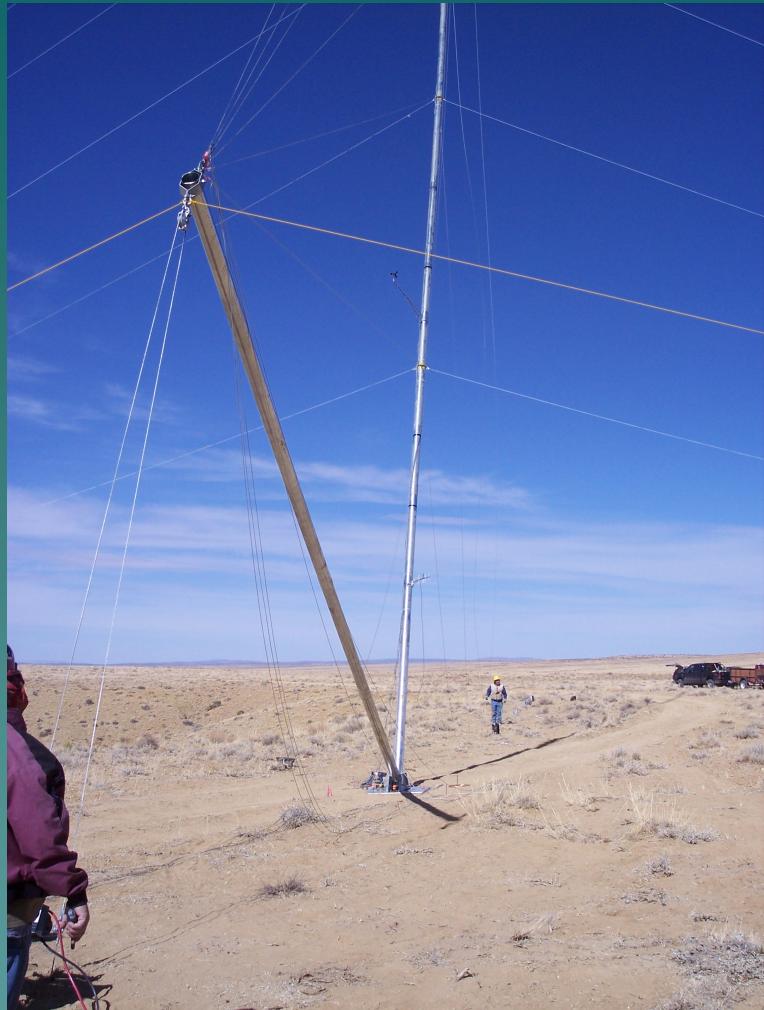
## EAST SUNSET MOUNTAIN



Mesa elevation 600 – 1100 feet prevailing plains

## PATH FORWARD

- ◆ Complete DOE funded feasibility work 2006 – include extension (6 months) up to August 2007
- ◆ If economically viable, continue public outreach and education effort to receive feedback from Hopi people
- ◆ Bring project opportunity before tribal Council for vote whether to continue to move forward
- ◆ Potential online date 2008



## PROPOSED NEXT STEPS

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