Feasibility Study for a Hopi Utility-Scale Wind Project
WIND ENERGY CAN BENEFIT HOPI TRIBE

New Economic Development
- Electricity export sales create new revenues for Nation (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

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: 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 helped identify energy opportunities including utility-scale wind power project development

- Foresight Wind Energy was developing the Sunshine project near Hopi private lands and Hopi joined as one of 3 private land owners
  - 60MW project, 1/3 on Hopi private fee lands
  - Now fully permitted, most market-ready project in Arizona
  - Project initially planned for construction in 2005, now delayed by APS
  - More details at www.sunshinewind.com

- 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 Hopi mesa tops
  - Project feasibility work underway
  - Exploring possibilities on two mesas, but if project goes forward, would likely be one mesa
PROJECT AREA MAP

Prevailing Wind Direction

Sunset Mountains sites

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WEST SUNSET MOUNTAIN

*Prevailing Wind Direction*

Mesa elevation 300 - 450 feet over prevailing plains
EAST SUNSET MOUNTAIN

Mesa elevation 600 - 1100 feet over prevailing plains
PROGRESS TO DATE

Wind resource assessment
- 50m met tower installed in April 2005
- Initial 5 months of data support attractive project economics

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
- Foresight has begun preliminary power marketing activities with target power buyers

Transmission Studies underway
- Project is in APS queue for electrical interconnection
- APS is now carrying out joint Feasibility/System Impact Study for the project

Environmental / Land Assessment started
- Phase I biological report is drafted and biological/avian survey work has begun in order to capture part of Fall bird migration at the site
- Foresight is managing third party studies, Hopi Tribal Programs are carrying out on-site survey work and lending their expertise
ACTIVITIES STILL TO COMPLETE

- **Continue wind resource assessment (install add’l 50m and 60m)**
  - County permits secured, installation 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 (3rd party)
  - Preliminary site construction access and geology review (3rd party)

- **Conduct a environmental, economic and cultural benefits assessment**
  - Continue with professional development and capacity building efforts
  - Conduct community awareness outreach

- **Economic Model and Business Structuring**
  - Develop initial financial model and economic pro-forma for the project
  - Establish a suitable preliminary legal and business structure under which the Hopi can effectively pursue development of the project if Feasibility Study determines no adverse environmental impacts
  - Develop a financing option plan and conduct preliminary meetings with industry financiers
PATH FORWARD

- Complete DOE funded feasibility work 2006
- 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 2007 - 2008
FORESIGHT BACKGROUND

- **Foresight Energy Company** - leading 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
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