# STANDING ROCK SIOUX TRIBE WIND FEASIBILITY STUDY



#### **FAWN WASIN ZI**

**ENERGY & MINERAL MANAGER (ACTING)** 

FWASINZI@STANDINGROCK.ORG

701-854-8639

## **OVERVIEW:**



- BACKGROUND INFORMATION ON STANDING ROCK SIOUX TRIBE
- WIND ASSESSMENT STUDY
- WIND FEASIBILITY STUDY
- CONCLUSION:
  - COMPUTER DATA CENTER
  - OCETI SAKOWIN POWER PROJECT
- LESSONS LEARNED:
  - RENEWABLE ENERGY & ENERGY DEVELOPMENT OFFICE
  - ENERGY LEADERSHIP
  - NEW GRANT COMMITTEE
  - OIL & GAS PREPARATION WORKING GROUP

### **STANDING ROCK**

- ONE OF SEVEN
   RESERVATIONS OF THE
   GREAT SIOUX NATION
- LOCATED IN SOUTH-CENTRAL NORTH DAKOTA & NORTH-CENTRAL SOUTH DAKOTA
- LOCATED IN SIOUX COUNTY, ND; CORSON COUNTY, SD & SMALL PORTIONS OF ZIEBACH & DEWEY COUNTIES IN SD
- RESERVATION DIRECTLY TO THE SOUTH IS CHEYENNE RIVER SIOUX TRIBE



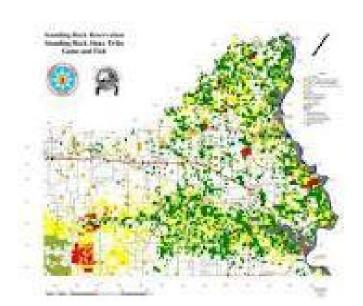


### **STANDING ROCK**



#### • LAND

- TERRAIN
  - WOODLANDS, ROLLING HILLS, RIVER VALLEYS, AND LAKES
- CHECKERBOARD
   OWNERSHIP
  - ALLOTTED, TRIBAL, AND OTHER (STATE, FEDERAL, NON-INDIAN)
- 2,320,247.67 ACRES (SOON TO INCREASE DUE TO LBBP)
- LOST NEARLY 560,000
   ACRES DUE TO THE PICK SLOAN FLOOD CONTROL
   ACT OF 1944



#### **STANDING ROCK**



#### DAKOTA:

HUNKPATINA & CUTHEAD – YANKTONAI

LAKOTA: THE MAJORITY ARE HUNKPAPA & BLACKFEET



CETAN WAKINYAN (THUNDERHAWK & TATANKA IYOTAKE (SITTING BULL): CHILD-HOOD FRIENDS (HUNKPAPA LAKOTA)

## STANDING ROCK SIOUX TRIBE



#### • ORGANIZATION

- CHAIRMAN, VICE-CHAIRMAN, SECRETARY
- 8 DISTRICT REPRESENTATIVES
- 6 AT-LARGE REPRESENTATIVES
- SEPARATED INTO 3 COMMITTEES:
  - JUDICIAL
  - ECONOMICS
  - HEALTH, EDUCATION, & WELFARE
- EACH PROGRAM DIRECTOR REPORTS TO ASSIGNED COMMITTEE ON A MONTHLY BASIS

## WIND FARM PROJECT:



- COUNCILMEN:
  - DAVE ARCHAMBAULT II (CURRENT CHAIRMAN)
  - JOSEPH MCNEIL
- LEADERSHIP THAT ENVISIONS RENEWABLE ENERGY BOTH AS AN ECONOMIC SOURCE AND ALTERNATIVE ENERGY SOURCE FOR STANDING ROCK

### ENERGY DEVELOPMENT



- LOOK GENERATIONS INTO THE FUTURE: HOW WILL OUR DECISIONS TODAY AFFECT FUTURE GENERATIONS?
- **RESOLUTION STATEMENTS**:
- TO DIVERSITY ENERGY (BOTH RENEWABLE & NON-RENEWABLE) SOURCES
- TO DIVERSITY ECONOMIC RESOURCES
- TO ADMINISTER SERVICES THAT MAY CONTRIBUTE TO THE SOCIAL & ECONOMIC ADVANCEMENT OF THE TRIBE AND ITS MEMBERS

## WIND ASSESSMENT STUDY



- FUNDED THROUGH THE DEPARTMENT OF INTERIOR
- WORKED WITH CONSULTANT ENGINEERING COMPANY TO ASCERTAIN THE BEST LOCATION FOR A WIND FARM
- CRITERIA BASED ON:
- ACCESSIBILITY
- PROXIMITY TO SUB-STATIONS OR TRANSMISSION LINES
- AVAILABILITY OF "TRIBAL-TRUST" OR "TRIBAL-FEE" LAND
- WIND DATA TAKEN FROM MET TOWER IN ELGIN ND
- SECONDARY: "WHERE'S THE WIND?"

### WIND FEASIBILITY STUDY



- THE 2<sup>ND</sup> STEP IN THE VISION FOR A COMMERCIAL WIND FARM ON STANDING ROCK
- 2 50-METER MET TOWERS ARE NOW LOCATED ON THE SHERWOOD HILL SITE
- BUSINESS PLAN:
- CONTRACTED LEGAL COUNSEL TO LOOK INTO WIND ENERGY TAX CREDITS, BUSINESS MODELLING, ETC.
- WHAT IS BEST FOR STANDING ROCK?

## WIND FEASIBILITY STUDY



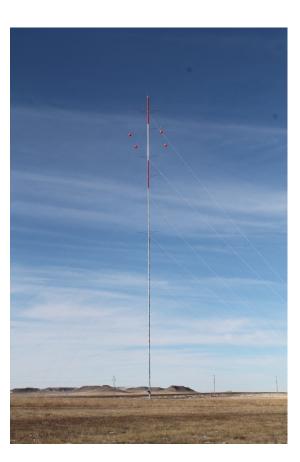
PLANNED YEAR LONG MONITORING BEGAN IN JANUARY 2013

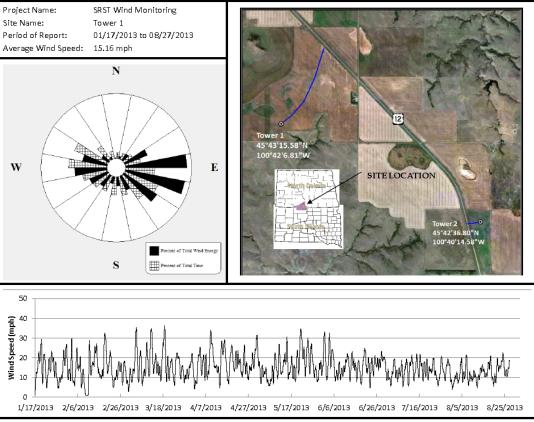
DESK STUDIES COMPLETED – GEOLOGIC SETTING, POTENTIAL AVIAN IMPACTS

PRELIMINARY INTERCONNECTION INDICATES CHALLENGES IN GETTING POWER TO MARKET

### WIND FEASIBILITY STUDY : TOWER 1

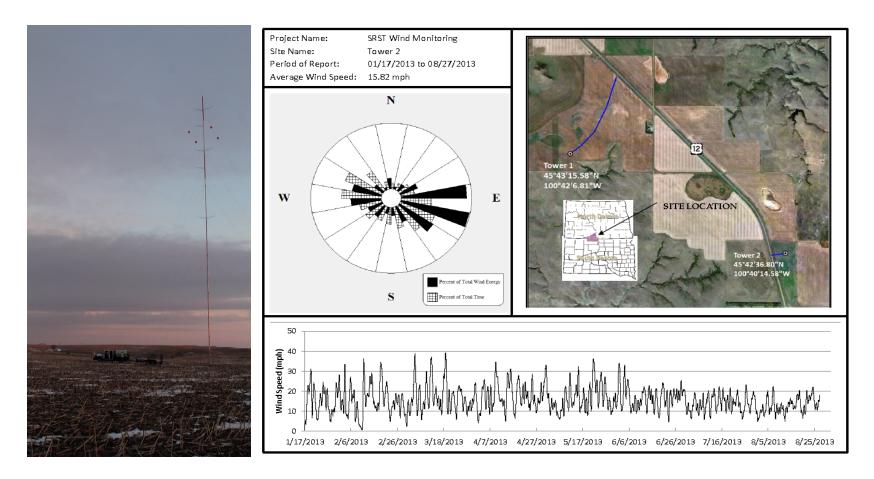






#### WIND FEASIBILITY STUDY: TOWER 2





#### WIND FEASIBILITY STUDY: TAX FINANCING



WIND TAX CREDITS:

NOT SURE IF WE CAN MAKE THE "BEGIN CONSTRUCTION" REQUIREMENT

PROBLEM: NEPA REQUIREMENTS/CLEARANCE

**OPTION 1**:

DUE TO OUR TRANSMISSION PROBLEM, WE HAVE ENTERED INTO NON-DISCLOSURE AGREEMENTS WITH SEVERAL COMPUTER DATA CENTERS

SOLVES INTERCONNECTION PROBLEM

SATISFIES "PUBLIC REVIEW" (USE POWER LOCALLY)

POTENTIAL FOR JOB CREATION

### OCETI SAKOWIN POWER PROJECT



- 7 COUNCIL FIRES
- STANDING ROCK SIOUX TRIBE, CHEYENNE RIVER SIOUX TRIBE, CROW CREEK SIOUX TRIBE, ROSEBUD SIOUX TRIBE, OGLALA SIOUX TRIBE, FLANDREAU SANTEE SIOUX TRIBE, SISSETON WAPEHTON SIOUX TRIBE, YANKTON SIOUX TRIBE
- TRIBES WILL COMBINE THEIR EFFORTS & RESOURCES TO BUILD A UTILITY SCALE 1GW+ WIND POWER GENERATION & TRANSMISSION SYSTEM THAT WILL SELL POWER TO OUT OF STATE BUYERS

### OCETI SAKOWIN POWER PROJECT



PROJECT WILL BE BUILT BY \$2 - \$3 BILLION IN FUNDING RAISED BY THE ISSUANCE OF POWER REVENUE BONDS ISSUED BY THE OSPP

TRIBES WILL MAINTAIN OWNERSHIP & CONTROL OVER THE PROJECT

FINANCING COSTS WILL BE GREATLY REDUCED & THUS NOT DEPENDENT ON THE EXTENSION OF THE WIND PRODUCTION TAX CREDIT

#### **FUTURE PLANS**



- DECIDE BETWEEN THE 2 OPTIONS:
  - COMPUTER DATA CENTER
  - OSPP
- ENVIRONMENTAL ASSESSMENT ON SITE 5 (SHERWOOD HILL)
  - AVIAN ISSUES
- ARCHAEOLOGICAL MICRO SURVEY (\$\$ PROBLEM)

#### **LESSONS LEARNED**



- FRUSTRATION DEVELOPMENT IN INDIAN COUNTRY...
  - SURROUNDING WIND FARMS
  - LOCAL BIA FIELD OFFICE (LACK OF ENERGY EXPERIENCE)
- RENEWABLE ENERGY & ENERGY DEVELOPMENT OFFICE
- CREATION OF ENERGY & MINERAL MANAGER
  - STRATEGIC PLANNING
- ADMINISTRATIVE DIRECTIVES:
  - OIL & GAS PREPARATION WORKING GROUP
  - NEW GRANT COMMITTEE (CFO, ADMINISTRATION, CONTRACTING...)
  - ENERGY LEADERSHIP

#### ANY QUESTIONS/COMMENTS?



#### *"LET US PUT OUR MINDS TOGETHER TO SEE WHAT WE CAN BUILD FOR OUR CHILDREN."*

ΤΑΤΑΝΚΑ ΙΥΟΤΑΚΕ

HUNKPAPA LAKOTA

**CHIEF SITTING BULL** 

