



U.S. Department of Energy  
Energy Efficiency and Renewable Energy

# Sandia National Laboratories' Technical Assistance

Sandra Begay-Campbell  
Principal Member of the Technical Staff

TEP Project Review  
November 17, 2008

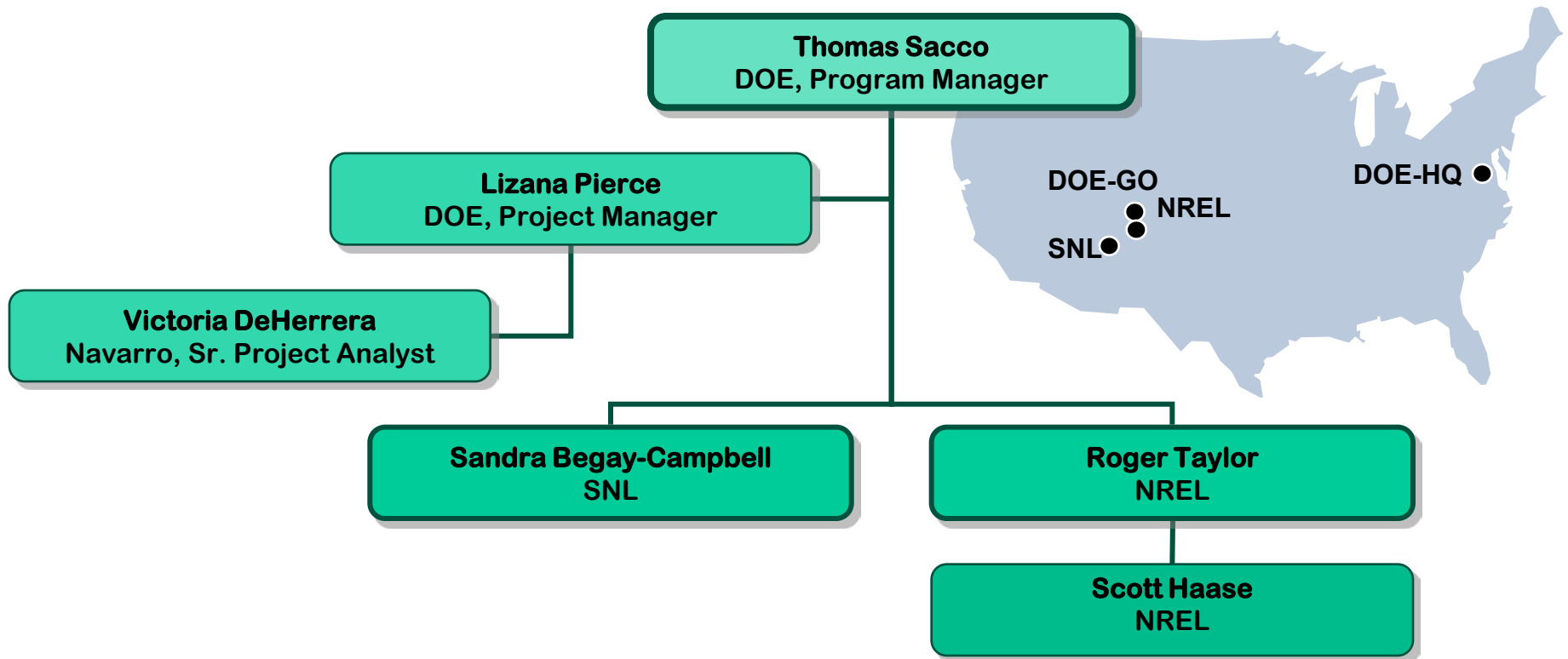


Sandia is a multiprogram laboratory operated by Sandia Corporation, a Lockheed Martin Company,  
for the United States Department of Energy under contract DE-AC04-94AL85000.





# DOE's Tribal Energy Program Organization





# Sandra Begay-Campbell



- Navajo engineer
- Principal Member of the Technical Staff
- Education advocate





- **Support Tribal Energy Program Activities**
- **Support Tribal technical assistance requests**
- **Manage the Student Internship Program**



New Mexico Site - Albuquerque, New Mexico



Helping our nation secure a peaceful and free world through technology.



**Sandia National Laboratories**





# Photovoltaics (PV)

**Off-grid PV System  
Ramona Band - Cahuilla**



Photovoltaics  
directly convert  
sunlight into  
Direct Current (DC)  
electricity.

**Concentrating PV  
Planned Jemez Project**



**Grid Connected Roof-Mounted PV**

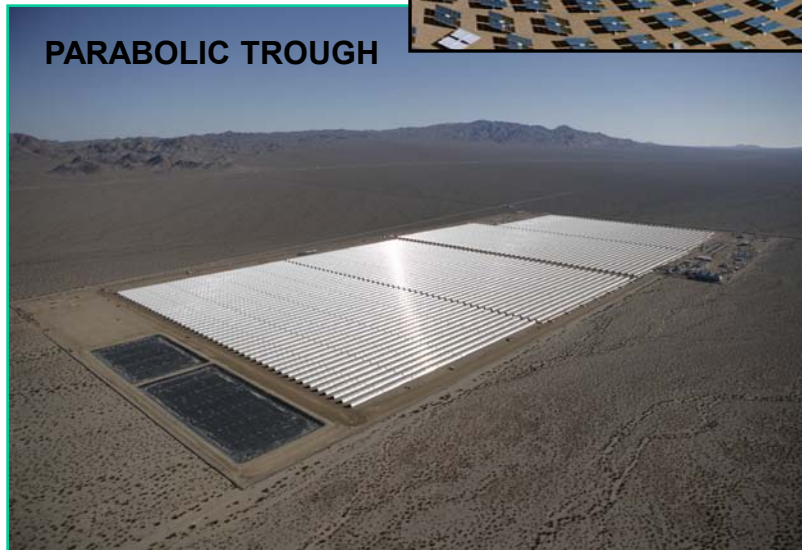




# Concentrating Solar Power



Concentrating Solar Power (CSP) is also referred to as Solar Thermal Electric Power.







# Immersion of future leaders into renewable energy



**Sandia/TEP interns on Navajo Nation**

Pictured left in the following order:

**Gepetta Billie (Navajo)**

MS – Regional & Community Planning, BA –  
Environmental Planning & Design

University of New Mexico

AS – Civil Engineering Technology, SIPI

**Amanda Montoya (Taos, San Juan & Isleta)**

MS – Regional & Community Planning, University of  
New Mexico

BA – Business Administration, NM State University

**Carson Pete (Navajo)**

MS – Mechanical Engineering, BS – Mechanical  
Engineering

Northern Arizona University

**Suzanne Singer (Navajo)**

PhD – Mechanical Engineering, MS – Mechanical  
Engineering

University of CA - Berkeley

BS – Mechanical Engineering, University of AZ