



November 12, 2013

**VIA: E-Mail and U.S. Mail**

Robin Phillips, Acting Superintendent  
Osage Agency, Bureau of Indian Affairs  
P.O. Box 1539  
Pawhuska, OK 74056

Dear Superintendent Phillips:

I am writing to request your assistance in protecting Chaparral Energy L.L.C.'s ("Chaparral") mineral lease with the Osage Nation, and the revenue generated for the Osage Mineral Estate. Wind Capital Group (Osage Wind, LLC) has begun constructing a complex 94-turbine wind power generation project on 8,500 acres in Osage County. The wind project is located on surface lands above, and in the subsurface within, the North Burbank Unit ("Unit") of the Osage Mineral Estate. As an Osage lessee, Chaparral has the right to explore and the duty to produce oil and gas in the Unit. Chaparral has made significant investments to produce the Unit pursuant to its legal obligations. The proposed wind project's elaborate web of 94 turbines, underground collection lines, overhead lines, and network of access roads will directly interfere and conflict with Chaparral's ability to safely and efficiently develop oil and gas minerals under its lease(s).

It is hard to overstate the importance of oil production from the almost 100 year-old Burbank Field. The Burbank Field has historically been the single largest generator of income for the Osage Mineral Estate. To date, it is estimated that the North Burbank Unit alone has generated \$900 million (2013 dollars) in royalties to the Osage Nation. Chaparral purchased the rights to the Unit from the prior operator in 2006, with the intent of implementing enhanced oil recovery ("EOR") operations. (EOR involves flooding a mature oil field with CO<sub>2</sub> in order to release and access stranded oil.) The planned EOR operations are expected to generate approximately \$1.1 billion in additional royalty payments to the Osage Nation over the remaining life of the project. However, over 1,840 acres of Chaparral's leasehold rights overlap with the proposed wind project footprint.

Chaparral executed a long-term carbon dioxide (CO<sub>2</sub>) purchase and sale agreement for the capture of CO<sub>2</sub> from a Kansas nitrogen fertilizer plant to allow Chaparral to initiate EOR operations in the Unit. To facilitate these operations, Chaparral constructed a CO<sub>2</sub> compression facility (\$61 million) at the Kansas plant site and installed approximately 68 miles of pipeline (\$60 million) to deliver the CO<sub>2</sub>. Chaparral began CO<sub>2</sub> injection in June of 2013, and the new EOR operations are expected to recover 77 million barrels of oil, upon which the Osage will receive royalty revenue. The 77 million barrels of oil could not have been recovered with traditional production operations.

Inclusive of the CO<sub>2</sub> capture facility and pipeline, Chaparral has invested approximately \$250 million in its Burbank EOR project. We intend to invest a total of \$1.8 billion over a number of years to fully implement the CO<sub>2</sub>-EOR project. Chaparral made this significant investment in the development of the Osage Mineral Estate with the full and reasonable expectation that its legal rights to develop the dominant mineral estate would be protected against conflicting uses of the subservient surface estate. Locating the wind project on the surface lands overlying the Burbank Field and placing turbine foundations and collection lines in the mineral estate will create serious safety issues generally unfamiliar to the wind energy industry. Because the Burbank Field is developed on 10-Acre well spacing, wells, pipelines, and other facilities are closer together than in many other producing regions. The oil and gas industry imposes set off distances as safety measures for remedial activities on existing wells, drilling operations on new sites, and work space extending on either side of pipelines. The masts of pulling units and drilling rigs vary in heights, but typical set off distances range from 110 to 130 feet. However, the height and constant motion of the proposed turbines create a much greater radius of influence, and safety considerations would therefore dictate even greater set off distances from oil and gas operations. Without such distances, the radius of influence associated with the rotating blades will inhibit safely intervening on existing wells and drilling of proposed new sites.

Development of the reservoir may be jeopardized, depending upon the proposed footprint of the wind project. The relocation of drilling sites from the symmetrical development of the EOR flood patterns will reduce the ultimate recovery of oil reserves, leading to a permanent loss of revenue to Chaparral and the Osage Mineral Estate. Directional drilling of future wells to reach the desired bottom-hole location and avoid surface obstructions (windmills) may be cost prohibitive at the shallow depth that exists in the Burbank Field.

In addition, the wind project will hamper, obstruct, and may even prevent Chaparral's oil and gas production over thousands of acres covered by its lease, as follows:

- The existing road network is limited in an effort to protect the prairie and improve the prairie visual aesthetics. The roads are maintained by Chaparral. Over-use by the wind project operations and resulting traffic will increase cost of maintenance, and will likely require constructing additional roads, and therefore causing additional destruction to the prairie.
- The wind turbines will require installation of significant surface and underground power gathering systems. These systems will add to the cost of oil and gas operations, and in some cases may prevent access to new or existing well or facility locations. Surface power lines will create further set off requirements as described above. Buried high voltage lines will create additional safety issues when oil and gas operators install or maintain existing lines.



- One of Chaparral's values is to support and improve the communities in which we operate, and as a result Chaparral is a member of the Oklahoma One-Call System, commonly known as Call Okie. The extensive excavation expected to result from turbine and power line installation will create an incredible burden for our employees responding to "One Call" requests. "One Calls" associated with the wind power generation facility installations, including turbines, roads, and electric lines, will create a need to hire additional personnel to locate existing infrastructure installed by Chaparral and prior operators in the oil field over the past 100 years. This is an additional safety concern, to ensure that the power generation complex does not encounter high pressure fluid lines or hydrocarbon-bearing pipelines and other oilfield infrastructure.
- Power lines associated with an extensive wind power development are known to create electric currents that cause corrosion in steel piping and structures. When leaks occur in oilfield operations we have environmental incidents. While mitigation efforts can be made to reduce this potential, it will increase maintenance costs of the existing lines.

Beyond the safety concerns of developing a complex of wind turbines and associated infrastructure among oilfield operations, and given the above limitations, Chaparral estimates that the proposed wind project would cause it to incur many millions of dollars in damages from lost production and associated revenue, and increased exploration and production costs. This will severely harm Chaparral's ability to recover its \$250 million investment in the Burbank Field, and will force Chaparral to re-evaluate its planned future investments in the field, which would otherwise likely approach \$1.8 billion. Consequently, increased costs to Chaparral automatically results in diminished economic returns from the oil field production. This directly causes a decrease in oil production, which will be a detrimental impact on the management and production of oil on behalf of the Osage Mineral Estate. In short, the proposed wind project will conflict with Chaparral's operations and unlawfully interfere with its legal right to develop the Osage Mineral Estate, to the detriment of both Chaparral and the Osage.

Chaparral understands that Wind Capital Group has recently commenced construction without any authorization from the BIA. Chaparral believes it is incumbent upon the BIA, as trustee and regulator of the Osage Mineral Estate, to take immediate action to protect both the Osage and the significant investments of Chaparral and other affected lessees whose leases will be impaired by the wind project. Chaparral has invested significant capital and made a long-term commitment to develop the Osage Mineral Estate, in reliance upon the United States' compliance with its duties as trustee and regulator to protect against surface uses that impair lessees' development of the mineral estate. Failure to act will result in significant harm to Chaparral, and will result in long-term negative consequences for leasing and production in Osage County. It would set a dangerous precedent in light of the multiple other wind projects proposed for Osage County, and send a chilling message to those who make or are considering making investments in Indian Country that the United States will not protect against the impairment of leases by third parties.

Chaparral looks forward to your prompt response to our concerns in light of the on-going wind project construction that has just initiated within our Unit.

Sincerely,



Mark Fischer, CEO



David Ketelsleger, General Council <sup>se</sup>



Scott Wehner, Sr. Vice President – EOR Operations

cc: Andrew Yates, Chairman, Osage Minerals Council  
Kevin Washburn, Assistant Secretary, Indian Affairs  
Robert Impson, Regional Director  
Eddie Streater, BIA Regional Office  
Alan Woodcock, Solicitor  
David Boyce, CEO, Wind Capital Group  
Robert Freeman, CEO, TradeWind Energy  
George M. Knapp, Vice President, Osage Wind, LLC