

# OKLAHOMA RENEWABLE ENERGY PROJECTS: PERMITTING CONSIDERATIONS

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## Executive Summary

Permitting considerations are critical to project success when developing any renewable energy project. In Oklahoma, as with any jurisdiction, a coordinated permitting strategy between the project developer, legal counsel, consultants, and project partners (including project financiers) is imperative. Although developers will be familiar with many of the required studies, permits, and other required governmental consents for Oklahoma projects, there are several obligations unique to Oklahoma. In addition, experience on a wide range of renewable projects in Oklahoma has taught the authors that communication with permitting authorities and other stakeholders early and often is crucial to avoiding or reducing delays and fatal flaws. Since practically any detailed step-by-step permitting guide for a large infrastructure project may quickly follow the lead of the dinosaurs as regulations change, the focus on this paper is on presenting a brief, but current, overview of the non-Federal permits required to develop a renewable energy project in Oklahoma, especially wind, solar, and co-located battery storage.

## I. Introduction

Oklahoma has established itself as a leader in renewable energy development. By 2022, electricity generation from wind accounted for 44% of all electricity generated in Oklahoma.<sup>3</sup> As recently as 2010, only 11.5% of Oklahoma's *electricity generation capacity* and 9.6% of its *net electricity generation* were attributable to renewable sources.<sup>4</sup> The 2022 generation percentage share for wind was the highest of any fuel source in the state, and Oklahoma ranked as the third largest producer of wind energy in the United States.<sup>5</sup> Although data sets for wind, solar and hydropower electricity generation capacities are often aggregated as "Noncombustible Renewables", making a source-by-source analysis of recent trends difficult to perform with certainty, experience and anecdotal evidence suggest that while wind generation remains the dominant generation fuel in Oklahoma, a material surge in the size, scale, and number of solar and co-located battery storage projects is currently underway.<sup>6</sup> In addition, numerous electrolysis/hydrogen-generation projects in various stages of development have come forward in the past year, often using wind or solar generated electricity for the electrolysis.

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<sup>3</sup> STATE RENEWABLE ELECTRICITY PROFILES 2010, U.S. ENERGY INFO. ADMIN., 108–09 (2012).

<sup>4</sup> *Id.*

<sup>5</sup> See *Oklahoma State Profile and Energy Estimates: Overview*, ENERGY INFO. ADMIN (June 15, 2023), <https://www.eia.gov/state/?sid=OK>; *Oklahoma State Profile and Energy Estimates: Data*, ENERGY INFO. ADMIN. (Jan 14, 2024), <https://www.eia.gov/state/data.php?sid=OK>.

<sup>6</sup> See *Id.*

The surge in renewable energy projects in Oklahoma since 2010 has not been by accident. In May 2010, the Oklahoma Energy Security Act was enacted.<sup>7</sup> This law declared a public interest in promoting renewable energy development in Oklahoma and established a goal that 15% of Oklahoma's electricity generation would come from renewable sources by 2015.<sup>8</sup>

Renewable projects are no different than any other large infrastructure project, whether a highway, port, or power plant, in that they are subject to a myriad of both federal and state permitting requirements. This is no different in Oklahoma. Project specifics such as size, location, footprint, maximum height, water use, and other factors have direct influence on permitting requirements and complexity. This is the same as any other state.

What those new to Oklahoma may find rather unique are "permit" requirements focused on protecting oil and gas operators conducting exploration and production activities, and "permit" requirements focused on maintaining and protecting airspace for military operations. Further, some developers may be surprised to find certain permit obligations in Oklahoma to be either more stringent than federal counterparts, or which exist and regulate activities which are not regulated at the federal level, as discussed in more detail below.

While general Federal requirements are briefly touched upon herein for the benefit of the reader, the focus of this paper is state-level requirements. The approach taken is to at least mention each non-federal government permit, notice, or consent required to develop a renewable energy project in Oklahoma (though admittedly focused on wind, solar, and battery storage projects), regardless of whether the issuance of a formal "permit" is required.

Of critical note, it is important that developers appreciate that the permitting process is about more than securing the government's authority to legally develop and operate a particular project. It is also about giving interested parties the opportunity to oppose, comment on, and potentially modify or influence the government's approval of any particular project. Because of this, it is critical that developers engage not only with the appropriate government agencies, but also stakeholders – early, often, and as transparently as possible.

With widespread prairies and open grasslands, consistent, steady winds, and more than 300 days of sunshine a year in many parts of the state, Oklahoma is ripe for renewable energy development, and Oklahoma is open for business for the renewable energy industry. Project developers will generally find reasonable state regulations and government entities, coupled with landowners typically ready and willing to lease property for energy projects. Nonetheless, it is critical that project development includes permitting considerations from the earliest stages to ensure project success, which often necessitates stakeholder engagement early and often.

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<sup>7</sup> 17 O.S. §§ 801.1 et seq.

<sup>8</sup> *Id.* § 801.4.

## **II. Renewable Energy Development in Oklahoma**

### **a. Current Status**

Although it is only the 20<sup>th</sup> largest state by area<sup>9</sup> (and the 28<sup>th</sup> by population),<sup>10</sup> in 2021, Oklahoma ranked 7<sup>th</sup> in total energy production, and 10<sup>th</sup> in total renewable energy production by state.<sup>11</sup> By 2023, it was the 3<sup>rd</sup> largest wind energy producer in the United States.<sup>12</sup> Wind accounted for about 93% of Oklahoma’s annual renewable electricity generation recently, which was 39,716 GWh in 2022.<sup>13</sup> Meanwhile, solar, biomass, and other renewable sources have each historically contributed less than 1% of the state’s annual renewable electricity generation.<sup>14</sup> However, recent federal funding, including potentially lucrative tax credits, along with significant advances in both battery storage and solar technologies, undoubtedly means that solar generation projects will become an increasingly valuable and important resource in the coming years.<sup>15</sup>

### **b. Oklahoma Permitting Agencies**

In Oklahoma, in addition to any federal or tribal jurisdiction, a variety of governmental entities exercise permitting authority over renewable energy projects. Appendix A includes a summary of various agencies and entities and some of the key statutes and regulations applicable to Oklahoma projects. Some of these entities include the Oklahoma Department of Environmental Quality (“ODEQ”), the Oklahoma Department of Transportation (“ODOT”), the Oklahoma Water Resources Board (“OWRB”), the Oklahoma Aeronautics Commission (“OAC”), the Oklahoma Corporation Commission (“OCC”), the Oklahoma Department of Public Safety (“DPS”), the Oklahoma Historical Preservation Review Committee (“HPRC”), and the Oklahoma Department of Wildlife Conservation (“DOW”), all of which have various review, notice, permitting, or jurisdictional authority over certain aspects of various renewable energy projects. In addition, county or local boards, commissions, or authorities may exercise land use, zoning, or other authority over renewable projects.

As with any project in any state, a myriad of federal regulations also exist. However, Oklahoma (significantly) also has 39 total Indian Nations within its borders, including 38 which

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<sup>9</sup> *State Area Measurements and Internal Point Coordinates*, U.S. CENSUS BUREAU (Dec. 16, 2021), <https://www.census.gov/geographies/reference-files/2010/geo/state-area.html>.

<sup>10</sup> *See State Population Totals and Components of Change: 2020-2023*, U.S. CENSUS BUREAU (Dec. 18, 2023), <https://www.census.gov/data/tables/time-series/demo/popest/2020s-state-total.html#v2023> (reflecting annual estimates of the residential population of all U.S. states from April 1, 2020, to July 1, 2023).

<sup>11</sup> *See* TABLE P5B – PRIMARY ENERGY PRODUCTION ESTIMATES, RENEWABLE AND TOTAL ENERGY, IN TRILLION BTU, RANKED BY STATE, ENERGY INFO. ADMIN. (2021).

<sup>12</sup> *See Oklahoma State Profile and Energy Estimates: Overview*, ENERGY INFO. ADMIN. (June 15, 2023), <https://www.eia.gov/state/?sid=OK>; *Oklahoma State Profile and Energy Estimates: Data*, ENERGY INFO. ADMIN. (Jan 14, 2024), <https://www.eia.gov/state/data.php?sid=OK>.

<sup>13</sup> *See Oklahoma State Profile and Energy Estimates: Analysis*, ENERGY INFO. ADMIN. (June 15, 2023), <https://www.eia.gov/state/analysis.php?sid=OK>. *See also Electricity Data Browser – Net Generation for All Sectors, Annual*, ENERGY INFO. ADMIN., <https://www.eia.gov/electricity/data/browser/> (last visited Jan. 4, 2024). To view the Oklahoma-specific annual data for all fuel types, access the Electricity Data Browser, click “Filter/Order,” select “All sectors” in the first column, select “Oklahoma” in the second column, and then click “Submit” in the top right corner.

<sup>14</sup> *See Oklahoma State Profile and Energy Estimates: Analysis*, ENERGY INFO. ADMIN. (June 15, 2023), <https://www.eia.gov/state/analysis.php?sid=OK>.

<sup>15</sup> *See* STATE SOLAR SPOTLIGHT: OKLAHOMA, SOLAR ENERGY INDUS. ASS’N (2023). *See also* MARLENE MOTYKA, JIM THOMSON, KATE HARDIN, & CAROLYN AMON, RENEWABLE ENERGY INDUSTRY OUTLOOK, DELOITTE RESEARCH CENTER FOR ENERGY AND INDUSTRIALS (2023).

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