



# INDUSTRIAL COMMISSION OF NORTH DAKOTA

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## RENEWABLE ENERGY PROGRAM

Governor  
**Doug Burgum**  
Attorney General  
**Wayne Stenehjem**  
Agriculture Commissioner  
**Doug Goehring**

### **Renewable Energy Program** **North Dakota Century Code 54-63**

#### **History of the Renewable Energy Program**

North Dakota's Renewable Energy Program ("Program") was established by the Legislature in 2007 under the control of the North Dakota Industrial Commission ("Commission"). The law provides that the Commission shall consult with the Renewable Energy Council ("Council"). The Program's responsibilities include providing financial assistance as appropriate to foster the development of renewable energy and related industrial use technologies including, but not limited to, wind, biofuels, advanced biofuels, biomass, biomaterials, solar, hydroelectric, geothermal, and advanced energy technology through research, development, demonstration and commercialization. In addition, the Program shall promote research and utilization of renewable energy co-product utilization for livestock feed, human food products and industrial use technologies. The Commission has adopted policies to implement this Program.

The Legislature further provided that the Commission shall contract with the Department of Commerce ("Commerce") to provide technical assistance to the Council and the Commission to carry out the law, including pursuit of aid, grants or contributions of money and other things of value from any source for any purpose consistent with the law.

The 2013 Legislature approved a continuing source of funding for the program with 5% of the monies credited to the Resources Trust Fund not to exceed \$3,000,000 per biennium.

#### **Mission Statement**

The mission of the Renewable Energy Program is to promote the growth of North Dakota's renewable energy industries through research, development, marketing and education.

#### **Grant Round Timelines**

Grant round application deadline dates are currently established to be February 1 and August 1 of each year. Additional grant round deadline dates may be established by the Commission.

#### **Grant Round Process & Procedures**

A group of Technical Reviewers are identified by the Commerce staff to analyze and critique the applications. Based on the analysis of the Technical Reviewers, Commerce staff makes a recommendation to the Council. The Council then makes a recommendation to the Commission. If the Commission approves funding the Industrial Commission Executive Director/Secretary negotiates a contract and payments are made based upon work completed.

Grants may not exceed the legislative appropriation. By policy, all projects must generate matching funds from industry or other sources (e.g., various federal government agencies, non-profit organizations) of cash or in-kind services (contributed equipment, materials or services). In-kind services may not exceed fifty percent of the total Commission funding amount. A grant may not exceed fifty percent of the total project cost. A higher priority will be given to those applications having private industry investment. The Commission has established that the maximum amount of

any one grant is \$500,000. The Commission may award multi-grants for different phases of a project, provided appropriate benchmarks are in place and earlier phases have been deemed successful by the Council and the Commission.

Projects designated by the Council to meet a “commercialization ready and technology deployment” status may receive a cooperative grant in which the recipient would pay back the award once certain measures of success have been met as defined further in the policies. If the company moves out of state or sells the technology developed with Program funding to an out-of-state entity, the entire amount of the funding must be repaid at the time of the awardee’s relocation or the sale of the technology along with an additional 4% of the funds received.

### **Funded Projects**

The Commission has approved the funding of 53 projects including 1 project that was funded from the Biomass Incentive Research Fund. The total amount of Program funding committed to the 53 approved projects as of December 31, 2020 is \$17,646,821. Each of these projects has match funding which means that the Renewable Energy Program funding has been leveraged to result in projects totaling over \$56 million. Some of the projects approved in the 2019-2021 biennium include:

#### **Enterprise Autonomy - Secure, Remote, Autonomous, Multi-Drone Operations within the Renewable Energy Sector**

This Phase I project revolutionized renewable energy operations, through the development of Airtonomy, which enables sophisticated artificial intelligence drone use by minimally trained, onsite technicians with the push of a button. Previously, wind energy producers spent over \$3,000 per turbine for total annual inspection costs (both indirect and direct) per turbine, at a frequency of one time per year proactively, plus reactively post-disaster/catastrophic event. Manual inspection of a standard wind turbine takes 3 inspectors approximately 24 man-hours to complete. With Airtonomy, customers are spending ~\$150 per turbine per year and can conduct unlimited inspections on demand, allowing for earlier detection of critical flaws and issues, at a total time of 15 minutes per turbine.

#### **Living Stone Lodge - Phase III**

The Living Stone Lodge project will bring affordable, energy-efficient homes to Native American tribes across the nation. Commercialization objectives include developing and packaging the building components into a kit that can be delivered onsite to buyers. A builder’s manual will also be developed to support local workers in safely constructing the home with quality outcomes that can be constructed for under \$100 per square foot. The project includes developing a renewable energy strategy; adding a geothermal ground source heat pump and engineering an electrical/mechanical energy corridor for conveniently adding renewable energy such as wind or solar to achieve a net-zero energy goal.

### **Renewable Energy Council**

The Renewable Energy Council is appointed by the Governor. Membership, defined by statute, includes the Commerce Commissioner who serves as chair, and a representative of each of the following industries: ethanol; biomass; agriculture; advanced biofuels and sugar-based biofuel; wind; and biodiesel.

ANALYSIS OF THE RENEWABLE ENERGY DEVELOPMENT FUND  
N.D.C.C. 54-63-04  
Continuing Appropriation

	<u>2019-2021 Biennium</u>	<u>2021-2023 Biennium</u>
Beginning Balance	\$4,992,964 <sup>1</sup>	\$1,760,060
Add estimated revenues <sup>2</sup>		
Resources Trust Fund	\$3,000,000	\$3,000,000
Interest Income (estimated)	\$ 18,950	\$ 5,000
Applicant contribution (estimated)	\$ 1,500	\$ 1,000
Total Available	<u>\$8,013,414</u>	<u>\$4,766,060</u>
Less estimated project expenditures and commitments		
Project Expenditures, Commitments & pending applications <sup>3</sup>	\$6,178,354	\$4,000,000
Administrative Costs	\$ 75,000	\$ 125,000
Total estimated expenditures	<u>\$6,253,354</u>	<u>\$4,125,000</u>
Estimated ending balance	<u>\$1,760,060</u>	<u>\$ 641,060</u>

<sup>(1)</sup> The Renewable Energy Program/Fund was authorized in 2007 and received \$3,000,000 General Fund appropriations in each of the 2007-2009, 2009-2011 biennia and \$1,500,000 in the 2011-2013 biennium. In addition, some special funds were transferred from the Biomass Incentive Fund prior to 2013. In the 2013-2015 biennium, a continuing appropriation was established with five percent of the Resources Trust Fund not to exceed \$3,000,000 per biennium so \$3,000,000 was received during the 2013-2015, 2015-2017 and 2017-2019 biennia.

<sup>(2)</sup> Revenues under the 2019-2021 biennium reflect the continuing appropriation of \$3,000,000. Other estimated revenues include actual interest income of \$15,562 and application contribution income of \$1,000 through November 2020 with estimated revenues for the remainder of the biennium.

<sup>(3)</sup> Actual project expenditures for the 2019-2021 biennium through November 2020 totaled \$2,326,521. There are outstanding commitments of \$1,655,583 for 10 projects, and a special grant round is underway with 3 applications totaling \$1,196,250 and one additional grant round scheduled for February 1, 2021 (estimate \$1,000,000 in applications). Actual administrative and technical costs through November 2020 total \$47,137 with an estimate for the remainder of the biennium.