

15 North 23rd Street, Stop 9018 • Grand Forks, ND 58202-9018 • P. 701.777.5000 • F. 701.777.5181 www.undeerc.org

November 1, 2019

Ms. Karlene Fine Executive Director North Dakota Industrial Commission 600 East Boulevard Avenue, Department 405 State Capitol, 14th Floor Bismarck, ND 58505-0840

Dear Ms. Fine:

Subject: Quarterly Progress Report for the Period of July 1 – September 30, 2019,

"Underground Storage of Produced Natural Gas - Conceptual Evaluation and Pilot

Project(s) (HB 1014)"; Contract No. G-049-092; EERC Fund 23984

Attached please find the Energy & Environmental Research Center (EERC) Quarterly Progress Report for the subject project. If you have any questions, please contact me by phone at (701) 777-5050 or by e-mail at bkurz@undeerc.org.

Sincerely,

Bethany A. Kurz

Assistant Director for Integrated Analytical

Solutions

BAK/bjr

Attachment

UNDERGROUND STORAGE OF PRODUCED NATURAL GAS – CONCEPTUAL EVALUATION AND PILOT PROJECT(S) (HB 1014)

Quarterly Progress Report

(for the period July 1 – September 30, 2019)

Prepared for:

North Dakota Industrial Commission

Prepared by:

Bethany A. Kurz Chad A. Wocken Alexander V. Chakhmakhchev Lonny L. Jacobson John A. Harju Charles D. Gorecki James A. Sorensen Loreal V. Heebink

Energy & Environmental Research Center University of North Dakota 15 North 23rd Street, Stop 9018 Grand Forks, ND 58202-9018

EERC DISCLAIMER

LEGAL NOTICE This research report was prepared by the Energy & Environmental Research Center (EERC), an agency of the University of North Dakota, as an account of work sponsored by the North Dakota Industrial Commission (NDIC). Because of the research nature of the work performed, neither the EERC nor any of its employees makes any warranty, express or implied, or assumes any legal liability or responsibility for the accuracy, completeness, or usefulness of any information, apparatus, product, or process disclosed or represents that its use would not infringe privately owned rights. Reference herein to any specific commercial product, process, or service by trade name, trademark, manufacturer, or otherwise does not necessarily constitute or imply its endorsement or recommendation by the EERC.

NDIC DISCLAIMER

This report was prepared by the EERC pursuant to an agreement partially funded by the Industrial Commission of North Dakota, and neither the EERC nor any of its subcontractors nor the North Dakota Industrial Commission nor any person acting on behalf of either:

- (A) Makes any warranty or representation, express or implied, with respect to the accuracy, completeness, or usefulness of the information contained in this report, or that the use of any information, apparatus, method, or process disclosed in this report may not infringe privately owned rights; or
- (B) Assumes any liabilities with respect to the use of, or for damages resulting from the use of, any information, apparatus, method, or process disclosed in this report.

Reference herein to any specific commercial product, process, or service by trade name, trademark, manufacturer, or otherwise does not necessarily constitute or imply its endorsement, recommendation, or favoring by the North Dakota Industrial Commission. The views and opinions of authors expressed herein do not necessarily state or reflect those of the North Dakota Industrial Commission.

TABLE OF CONTENTS

LIST OF TABLES	i
EXECUTIVE SUMMARY	ii
INTRODUCTION	1
ACCOMPLISHMENTS DURING REPORTING PERIOD	
Collaboration with Project Partner and North Dakota Industrial Commission (NDIC) Department of Mineral Resources (DMR)	
Laboratory Activities	2
PARTNERS AND FINANCIAL INFORMATION	
FUTURE ACTIVITIES	
Program Management and Reporting Collaboration with Project Partner and NDIC DMR	
Laboratory Activities	3
Surface Facility Planning	
HOUSE BILL 1014Appendi	хА
LIST OF TABLES	
Table 1. Expected Budget and Expenses to Date	3

UNDERGROUND STORAGE OF PRODUCED NATURAL GAS – CONCEPTUAL EVALUATION AND PILOT PROJECT(S) (HB 1014)

EXECUTIVE SUMMARY

The Energy & Environmental Research Center (EERC) is performing a project to directly address the intent of Section 25 of House Bill 1014 of the Sixty-Sixth Legislative Assembly of North Dakota as signed into law by Governor Burgum, which states that funding will be made available to the EERC for "pilot projects relating to the underground storage of produced natural gas." The overall goal of the proposed effort is to demonstrate the techno-economic feasibility of produced natural gas ("produced gas") injection into non-hydrocarbon-producing subsurface formations in the Williston Basin for future recovery and use or for pressure maintenance and/or enhanced oil recovery in a conventional or unconventional oil reservoir. To achieve the project goal, the EERC will partner with North Dakota oilfield producers on up to three pilot project efforts to define and assess the key technical, economic, and regulatory components of each approach. This progress report presents an overview of activities from July 1 through September 30, 2019.

The EERC worked on a contract with an interested project partner, XTO Energy (XTO). It is anticipated that a cost-share agreement for an initial evaluation of potential pilot project locations will be complete with XTO by next quarter. Once in place, activities on this project will commence in full.

UNDERGROUND STORAGE OF PRODUCED NATURAL GAS – CONCEPTUAL EVALUATION AND PILOT PROJECT(S) (HB 1014)

INTRODUCTION

The Energy & Environmental Research Center (EERC) is performing a project to directly address the intent of Section 25 of House Bill (HB) 1014 of the Sixty-Sixth Legislative Assembly of North Dakota as signed into law by Governor Burgum which states that funding will be made available to the EERC for "pilot projects relating to the underground storage of produced natural gas" (see Appendix A). The overall goal of the proposed effort is to demonstrate the techno-economic feasibility of produced natural gas ("produced gas") injection into non-hydrocarbon-producing subsurface formations in the Williston Basin for future recovery and use or for pressure maintenance and/or enhanced oil recovery (EOR) in a conventional or unconventional oil reservoir. To achieve the project goal, the EERC will partner with North Dakota oilfield producers on up to three pilot project efforts to define and assess the key technical, economic, and regulatory components of each approach.

The primary project objectives will be to evaluate the viability of various subsurface formations as storage and/or injection targets, to document the facilities and equipment needs and costs for produced gas injection, to predict the subsurface storage footprint of the injected gas plume over time, to predict gas recovery efficiencies, to develop a monitoring plan, and to summarize the required regulatory considerations for different injection/storage scenarios. The above information will be obtained from a combination of research activities performed at the EERC and from up to three pilot projects performed in partnership with and including substantial financial investment from oilfield operating companies.

ACCOMPLISHMENTS DURING REPORTING PERIOD

Program Management and Reporting

The EERC will be responsible for managing and reporting of our activities with respect to the implementation and assessment of the pilot projects. Quarterly reports will be submitted to the North Dakota Industrial Commission (NDIC) 1 month after the end of each calendar quarter to provide timely highlights of ongoing research activities. At least one report will be provided to legislative management regarding the results and recommendations of the pilot project(s).

In addition to progress reporting, the relevant data and results needed to assess the overall technical and economic performance of the approach will be compiled and analyzed. The results of the gas injection scenarios that are technically and economically feasible will be used to develop an implementation plan that highlights optimal locations and scenarios for produced gas storage, recovery, and reuse throughout the oil and gas production regions of North Dakota. Key lessons learned from the pilot project(s) will be incorporated into that plan for future development efforts.

During the past quarter, the EERC worked on establishing a cost-share agreement with XTO Energy (XTO) that would entail the EERC performing an evaluation of potential pilot project locations. It is anticipated that the terms of the cost-share agreement will be negotiated between the EERC and XTO and the contract will be finalized next quarter. Once in place, activities on this project will commence in full.

During this reporting period, a member of the EERC project team participated in the North Dakota Petroleum Council Annual Meeting, which was held September 17–19, 2019, in Watford City, North Dakota. Several of the talks at the meeting focused on gas capture and pipeline transport capacity issues within the state.

Collaboration with Project Partner and North Dakota Industrial Commission (NDIC) Department of Mineral Resources (DMR)

The EERC will collaborate with the project partner(s) and NDIC DMR to define the key regulatory considerations for the pilot project(s), to assist with project permitting, and to define and implement site monitoring techniques.

No activities in this area were performed during the reporting period.

Laboratory Activities

Laboratory-based activities will be performed to characterize the potential gas injection targets to better understand the gas storage potential, to predict gas injection rates, and to evaluate the overlying formation as a reservoir seal. If the site has potential for EOR, additional laboratory tests will be performed to evaluate the minimum miscibility pressure (MMP) required for effective EOR and to estimate the potential incremental oil recovery achieved by produced gas injection.

No activities in this area were performed during the reporting period.

Modeling and Simulation

Geologic and/or simulation models of the injection targets will be developed to estimate the injectivity of the target, gas storage potential, gas and water recovery rates, stored gas plume extents in the formation and, if applicable, incremental oil recovery. The modeling and simulation results will be used to help design and inform the field demonstration tests.

No activities in this area were performed during the reporting period.

Surface Facility Planning

The EERC will assist with surface facility planning, including identification and pricing of the gas conditioning and compression components, brine disposal options, stored gas recovery system requirements (if applicable), and other surface-related infrastructure. Depending on the

nature and duration of the pilot project, equipment rental options may also be evaluated as alternative to purchasing equipment.

No activities in this area were performed during the reporting period.

PARTNERS AND FINANCIAL INFORMATION

The project is sponsored by NDIC Oil & Gas Research Program. Table 1 shows the budget of \$6,000,000 from NDIC, as listed in HB 1014, and expenses through the reporting period. Once specific pilot project(s) are identified, attendant detailed budgets will be developed. It is expected that pilot project partner(s) will provide substantial cost share that will be documented to the greatest degree possible.

Table 1. Expected Budget and Expenses to Date

	Expected	Actual Expenses	
Sponsors	Budget	as of 9/30/19	Balance
NDIC Share – Cash	\$6,000,000	\$35,149	\$5,964,851
Industry Share – In-Kind	\$6,000,000	\$-	\$-
Total	\$12,000,000	\$35,149	\$5,964,851

FUTURE ACTIVITIES

The planned activities for the next quarter are detailed below.

Program Management and Reporting

Completion of a contract with project partner XTO is expected.

Collaboration with Project Partner and NDIC DMR

Once a contract is in place with a project partner, the EERC will assist the partner with all aspects of assessing, permitting, and implementing potential gas storage pilot projects at one or more locations in North Dakota.

Laboratory Activities

It is anticipated that laboratory activities will be initiated the next quarter. The activities will be determined pending the availability of samples.

Modeling and Simulation

It is anticipated that modeling and simulation activities will be initiated the next quarter focused on the site selected.

Surface Facility Planning

Once a contract is in place with a project partner, the EERC will assist the partner with surface facility planning activities.



APPENDIX A HOUSE BILL 1014

19.0202.04000

Sixty-sixth Legislative Assembly of North Dakota

FIRST ENGROSSMENT with Conference Committee Amendments ENGROSSED HOUSE BILL NO. 1014

Introduced by

12

Appropriations Committee

1 A BILL for an Act to provide for an appropriation for defraying the expenses of the industrial 2 commission and the agencies under the management of the industrial commission; to create 3 and enact a new section to chapter 6-09 of the North Dakota Century Code, relating to a 4 rebuilders home loan program; to amend and reenact section 54-17-40 and subdivision f of 5 subsection 1 of section 57-51-15 of the North Dakota Century Code and section 7 of House Bill 6 No. 1435, as approved by the sixty-sixth legislative assembly, relating to the housing incentive 7 fund, the fund balance of the abandoned oil and gas well plugging and site reclamation fund, 8 and a transfer to the statewide interoperable radio network fund; to provide a contingent 9 authorization; to provide for a transfer; to provide for a contingent transfer; to provide an 10 exemption; to provide for a report; to provide for a study; to provide a statement of legislative 11 intent; and to declare an emergency.

BE IT ENACTED BY THE LEGISLATIVE ASSEMBLY OF NORTH DAKOTA:

13	SECTION 1. APPROPRIATION. The funds provided in this section, or so much of the funds			
14	as may be necessary, are appropriated out of any moneys in the general fund in the state			
15	treasury, not otherwise appropriated, and from special funds derived from federal funds and			
16	other income to the industrial commission and agencies under its control for the purpose of			
17	defraying the expenses of the industrial commission and agencies under its control, for the			
18	biennium beginning July 1, 2019, and ending June 30, 2021, as follows:			
19	Subdivision 1.			
20	INDUSTRIAL COMMISSION			
21			Adjustments or	
22		Base Level	Enhancements	<u>Appropriation</u>
23	Salaries and wages	\$22,014,084	\$1,570,366	\$23,584,450
24	Operating expenses	5,305,888	794,339	6,100,227

Sixty-sixth Legislative Assembly

1	Capital assets	0	5,000,000	5,000,000
2	Grants - bond payments	13,210,484	(2,701,717)	10,508,767
3	Contingencies	221,737	<u>7,807</u>	229,544
4	Total all funds	\$40,752,193	\$4,670,795	\$45,422,988
5	Less estimated income	15,343,206	<u>2,650,584</u>	17,993,790
6	Total general fund	\$25,408,987	\$2,020,211	\$27,429,198
7	Full-time equivalent positions	110.25	2.00	112.25
8	Subdivision 2.			
9	BANK	OF NORTH DAM	KOTA	
10			Adjustments or	
11		Base Level	Enhancements	<u>Appropriation</u>
12	Bank of North Dakota operations	\$58,489,204	\$4,358,595	\$62,847,799
13	Capital assets	810,000	700,000	<u>1,510,000</u>
14	Total special funds	\$59,299,204	\$5,058,595	\$64,357,799
15	Full-time equivalent positions	181.50	0.00	181.50
16	Subdivision 3.			
17	HOUSII	NG FINANCE AG	SENCY	
18			Adjustments or	
19		Base Level	Enhancements	<u>Appropriation</u>
20	Salaries and wages	\$7,892,056	\$616,959	\$8,509,015
21	Operating expenses	4,743,355	602,921	5,346,276
22	Grants	31,794,828	1,671,772	33,466,600
23	Housing finance agency contingencies	100,000	<u>0</u>	100,000
24	Total special funds	\$44,530,239	\$2,891,652	\$47,421,891
25	Full-time equivalent positions	44.00	0.00	44.00
26	Subdivision 4.			
27	MILL AND ELEVATOR ASSOCIATION			
28			Adjustments or	
29		Base Level	Enhancements	<u>Appropriation</u>
30	Salaries and wages	\$39,308,519	\$7,139,305	\$46,447,824
31	Operating expenses	28,195,000	1,642,000	29,837,000

1	Contingencies	500,000	0	500,000
2	Agriculture promotion	<u>210,000</u>	<u>0</u>	<u>210,000</u>
3	Total special funds	\$68,213,519	\$8,781,305	\$76,994,824
4	Full-time equivalent positions	153.00	3.00	156.00
5	Subdivision 5.			
6		BILL TOTAL		
7			Adjustments or	
8		Base Level	Enhancements	<u>Appropriation</u>
9	Grand total general fund	\$25,408,987	\$9,540,211	\$34,949,198
10	Grand total special funds	<u>187,386,168</u>	<u>19,382,136</u>	206,768,304
11	Grand total all funds	\$212,795,155	\$28,922,347	\$241,717,502
12	SECTION 2. ONE-TIME FUNDING - EFFECT ON BASE BUDGET - REPORT TO THE			
13	SIXTY-SEVENTH LEGISLATIVE ASSEMBLY. The following amounts reflect the one-time			
14	funding items approved by the sixty-fifth legislative assembly for the 2017-19 biennium and the			
15	2019-21 biennium one-time funding items included in the appropriation in section 1 of this Act:			
16	One-Time Funding Descrip	<u>ption</u>	<u>2017-19</u>	<u>2019-21</u>
17	Litigation		\$1,000,000	\$0
18	Industrial water supply asset study		150,000	0
19	Soil remediation studies		5,000,000	0
20	Survey review		800,000	0
21	Temporary employees		0	175,000
22	Rare earth elements study		0	160,000
23	Fracturing sand study		0	110,000
24	Oil database software upgrade		<u>0</u>	5,000,000
25	Total all funds		\$6,950,000	\$5,445,000
26	Less estimated income		<u>6,950,000</u>	5,270,000
27	Total general fund		\$0	\$175,000
28	The 2019-21 biennium one-time	e funding amounts are	not a part of the entity	's base budget
29	for the 2021-23 biennium. The industrial commission shall report to the appropriations			
30	committees of the sixty-seventh legislative assembly on the use of this one-time funding for the			
31	biennium beginning July 1, 2019, and ending June 30, 2021.			

1 SECTION 3. BOND PAYMENTS. The amount of \$10,508,767 included in subdivision 1 of 2 section 1 of this Act in the grants - bond payments line item must be paid from the following 3 funding sources during the biennium beginning July 1, 2019, and ending June 30, 2021: 4 \$4,959,448 North Dakota university system 5 North Dakota university system - energy conservation projects 415,664 6 Department of corrections and rehabilitation 689,299 7 16,180 Department of corrections and rehabilitation - energy conservation projects 8 State department of health 644,884 9 Job service North Dakota 434,847 10 Office of management and budget 567,125 11 Attorney general's office 647,500 12 State historical society 1,177,875 13 Parks and recreation department 66,875 14 Research and extension service 483,337 15 Veterans' home 405,733 16 Total \$10,508,767 17 SECTION 4. APPROPRIATION - HOUSING FINANCE AGENCY - ADDITIONAL INCOME. 18 In addition to the amount appropriated to the housing finance agency in subdivision 3 of 19 section 1 of this Act, there is appropriated any additional income or unanticipated income from 20 federal or other funds which may become available to the agency for the biennium beginning 21 July 1, 2019, and ending June 30, 2021. The housing finance agency shall notify the office of 22 management and budget and the legislative council of any additional income or unanticipated 23 income that becomes available to the agency resulting in an increase in appropriation authority. 24 SECTION 5. APPROPRIATION - TRANSFER GENERAL FUND TO HIGH-LEVEL 25 **RADIOACTIVE WASTE FUND.** There is appropriated out of any moneys in the general fund in 26 the state treasury, not otherwise appropriated, the sum of \$20,000, which the office of 27 management and budget shall transfer to the high-level radioactive waste fund during the 28 biennium beginning July 1, 2019, and ending June 30, 2021. The funding provided in this 29 section is considered a one-time funding item. 30 SECTION 6. APPROPRIATION - TRANSFER GENERAL FUND TO HOUSING 31 **INCENTIVE FUND.** There is appropriated out of any moneys in the general fund in the state

- 1 treasury, not otherwise appropriated, the sum of \$7,500,000, which the office of management 2 and budget shall transfer to the housing incentive fund during the biennium beginning July 1, 3 2019, and ending June 30, 2021. The funding provided in this section is considered a one-time 4 funding item. 5 SECTION 7. CONTINGENT FUNDING - INDUSTRIAL COMMISSION. The amount of 6 \$229,544 from the general fund and two full-time equivalent positions included in subdivision 1 7 of section 1 of this Act may be spent only in accordance with the provisions of this section. The 8 industrial commission shall notify the office of management and budget and the legislative 9 council when the total number of wells capable of production and injection exceeds twenty 10 thousand eight hundred. Subject to budget section approval, the industrial commission may 11 spend \$229,544 from the contingencies line item and may hire two full-time equivalent positions 12 if the total number of oil wells capable of production and injection exceeds twenty thousand 13 eight hundred. 14 SECTION 8. TRANSFER - ENTITIES UNDER THE CONTROL OF THE INDUSTRIAL 15 COMMISSION TO INDUSTRIAL COMMISSION FUND. The sum of \$1,172,603, or so much of 16 the sum as may be necessary, included in the appropriation in subdivision 1 of section 1 of this 17 Act, may be transferred from the entities within the control of the industrial commission or 18 entities directed to make payments to the industrial commission fund for administrative services 19 rendered by the commission. Transfers must be made during the biennium beginning July 1, 20 2019, and ending June 30, 2021, upon order of the commission. Transfers from the student 21 loan trust fund must be made to the extent permitted by sections 54-17-24 and 54-17-25. 22 SECTION 9. TRANSFER - BANK OF NORTH DAKOTA PROFITS TO GENERAL FUND. 23 The industrial commission shall transfer to the general fund \$140,000,000 from the current 24 earnings and the accumulated profits of the Bank of North Dakota during the biennium 25 beginning July 1, 2019, and ending June 30, 2021. The moneys must be transferred in the 26 amounts and at the times requested by the director of the office of management and budget 27 after consultation with the Bank of North Dakota president. For legislative council budget status 28 reporting purposes, the transfer under this section is considered an ongoing revenue source. 29 SECTION 10. TRANSFER - PARTNERSHIP IN ASSISTING COMMUNITY EXPANSION. 30
 - The Bank of North Dakota shall transfer the sum of \$26,000,000, or so much of the sum as may be necessary, from the Bank's current earnings and undivided profits to the partnership in

1 assisting community expansion fund during the biennium beginning July 1, 2019, and ending 2 June 30, 2021. 3 SECTION 11. TRANSFER - AGRICULTURE PARTNERSHIP IN ASSISTING COMMUNITY 4 **EXPANSION.** The Bank of North Dakota shall transfer the sum of \$4,000,000, or so much of the 5 sum as may be necessary, from the Bank's current earnings and undivided profits to the 6 agriculture partnership in assisting community expansion fund during the period beginning with 7 the effective date of this Act and ending June 30, 2021. The Bank may use up to \$1,000,000 of 8 the funding provided in this section to expand the parameters for the agriculture partnership in 9 assisting community expansion program to assist farmers and livestock producers that suffered 10 extraordinary losses related to river flooding in the state due to ice jams in the winter and spring 11 of 2019 for the period beginning with the effective date of this Act and ending June 30, 2021. 12 SECTION 12. TRANSFER - BIOFUELS PARTNERSHIP IN ASSISTING COMMUNITY 13 **EXPANSION.** The Bank of North Dakota shall transfer the sum of \$1,000,000, or so much of the 14 sum as may be necessary, from the Bank's current earnings and undivided profits to the 15 biofuels partnership in assisting community expansion fund during the biennium beginning 16 July 1, 2019, and ending June 30, 2021. 17 SECTION 13. TRANSFER - BEGINNING FARMER REVOLVING LOAN FUND. The Bank 18 of North Dakota shall transfer the sum of \$6,000,000, or so much of the sum as may be 19 necessary, from the Bank's current earnings and undivided profits to the beginning farmer 20 revolving loan fund during the biennium beginning July 1, 2019, and ending June 30, 2021. 21 SECTION 14. TRANSFER - NORTH DAKOTA DEVELOPMENT FUND. The Bank of North 22 Dakota shall transfer the sum of \$15,000,000, or so much of the sum as may be necessary. 23 from the Bank's current earnings and undivided profits to the North Dakota development fund 24 established under chapter 10-30.5 during the biennium beginning July 1, 2019, and ending 25 June 30, 2021. Funding transferred under this section must be used to purchase existing 26 venture capital assets held by the Bank of North Dakota. 27 SECTION 15. TRANSFER - REBUILDERS LOAN PROGRAM PAYMENTS TO 28 **REBUILDERS HOME LOAN FUND.** From the principal payments received under the rebuilders 29 loan program established in section 6-09-46, which were designated to replenish the Bank of 30 North Dakota's current earnings and undivided profits pursuant to section 3 of chapter 83 of the 31 2013 Session Laws, the Bank shall transfer the sum of \$3,750,000 to the rebuilders home loan

- 1 fund during the period beginning with the effective date of this Act and ending June 30, 2021.
- 2 Any funds not committed to loans by September 30, 2020, must be returned to the Bank's
- 3 current earnings and undivided profits.
- 4 SECTION 16. CONTINGENT TRANSFER STRATEGIC INVESTMENT AND
- 5 IMPROVEMENTS FUND TO INFRASTRUCTURE REVOLVING LOAN FUND. The office of
- 6 management and budget shall transfer up to \$40,000,000 of any oil and gas tax revenues
- 7 deposited in the strategic investment and improvements fund during the period August 1, 2017,
- 8 through July 31, 2019, exceeding \$755,000,000, from the strategic investment and
- 9 improvements fund to the infrastructure revolving loan fund established under section 6-09-49,
- during the biennium beginning July 1, 2019, and ending June 30, 2021.
- 11 SECTION 17. ESTIMATED INCOME STRATEGIC INVESTMENT AND IMPROVEMENTS
- 12 **FUND.** The operating expenses line item and the estimated income line item in subdivision 1 of
- section 1 of this Act include \$270,000 from the strategic investment and improvements fund for
- 14 a rare earth element study and a fracturing sand study.
- 15 SECTION 18. ESTIMATED INCOME ABANDONED OIL AND GAS WELL PLUGGING
- 16 AND SITE RECLAMATION FUND. The capital assets line item and the estimated income line
- 17 item in subdivision 1 of section 1 of this Act include \$5,000,000 from the abandoned oil and gas
- well plugging and site reclamation fund for a risk-based data management system information
- 19 technology project.
- 20 SECTION 19. OIL AND GAS RESEARCH FUND RECYCLING PRODUCED WATER
- 21 STUDY REPORT TO LEGISLATIVE MANAGEMENT. Pursuant to the continuing
- appropriation in section 57-51.1-07.3, the industrial commission shall use \$300,000, or so much
- 23 of the sum as may be necessary, from the oil and gas research fund to contract with the
- sponsor of the proposal selected for the study. The industrial commission shall issue a request
- for proposals for a study regarding the recycling of water used in oil and gas operations, also
- 26 known as produced water, from oil and gas-producing regions of North Dakota. The study must
- 27 include the development or compilation of data regarding methods for the recycling of produced
- water specific to this state, and must examine the relevant, objective economic, regulatory,
- 29 scientific, technological, and feasibility considerations. The contractor shall provide reports on
- 30 the status of the study at the request of the legislative management during the 2019-20 interim
- and shall provide a final report to the legislative management by October 1, 2020.

4

5

6

7

8

9

10

11

12

13

14

15

16

17

18

19

20

21

22

23

24

25

26

27

28

29

30

31

1 **SECTION 20.** A new section to chapter 6-09 of the North Dakota Century Code is created 2 and enacted as follows:

Rebuilders home loan program - Rebuilders home loan fund - Continuing appropriation - Requirements.

- There is created in the state treasury the rebuilders home loan fund administered by the Bank of North Dakota. The fund consists of all moneys transferred to the fund by the legislative assembly. All moneys in the fund are appropriated to the Bank on a continuing basis for the rebuilders home loan program.
- The Bank shall develop policies to implement this section. The Bank shall make or 2. participate in loans to North Dakota residents affected by river flooding in the state due to ice jams in the winter and spring of 2019. Loans are available for rebuilding the resident's flood-damaged home or rebuilding nonowner-occupied property. A loan from the fund must have the interest rate fixed at one percent per year for no more than twenty years. A loan made to a homeowner or owner of nonowner-occupied property under this section may not exceed the lesser of seventy-five thousand dollars or the actual amount of documented damage not paid by flood insurance. For purposes of this section, "nonowner-occupied property" means property consisting of one or more rental dwelling units, none of which is occupied by the owner, and does not include hotel or motel accommodations or any other commercial property. For a resident rebuilding the resident's flood-damaged home, up to twenty percent of the loan proceeds disbursed under this program may be used for debt service, debt retirement, or other credit obligations. For every loan made from the fund to a homeowner to rebuild or replace that individual's flood-damaged home, principal and interest payments must be deferred for the first twenty-four months of the loan. There is no deferral of principal and interest payments for a loan for nonowner-occupied property.
- 3. A resident homeowner or owner of nonowner-occupied property is eligible for a loan under this section only if the home or property is located in an area affected by river flooding in the state due to ice jams in the winter and spring of 2019. To qualify for a loan under this section, the owner of nonowner-occupied property must have been the owner at the time of the flooding event, and the number of rental dwelling units in the property rebuilt under this section must remain the same as before the flooding event.

- A loan to the owner of nonowner-occupied property must be secured by the property
 for which the loan is made.

 An application for a loan from the fund must be made to the Bank or originating financial institution, and, upon approval, a loan must be made from the fund in
- financial institution, and, upon approval, a loan must be made from the fund in

 accordance with this section. An application for a loan to a homeowner or for a loan for

 nonowner-occupied property under this section may not be accepted after

 September 30, 2020.
 - 5. Repayments to the rebuilders home loan fund must be transferred annually to replenish the Bank's current earnings and undivided profits which were transferred to the rebuilders home loan fund. If, subsequent to receiving a loan from the fund, the property for which the loan was made is purchased for flood mitigation purposes or otherwise sold, the balance of the loan and any interest accrued on the loan must be repaid to the fund upon the closing of the sale. If the borrower provides financial evidence satisfactory to the Bank to show that the borrower does not have the financial ability to repay the loan in full upon sale of the property, after the sale of the property the Bank may allow the borrower to continue to make payments based on the loan terms.
 - 6. The Bank may deduct, from interest payments received on loans, a service fee for administering the fund for the Bank and originating financial institutions. The Bank shall contract with a certified public accounting firm to audit the fund as necessary.
 The cost of the audit, and any other actual costs incurred by the Bank on behalf of the fund, must be paid by the fund.
 - **SECTION 21. AMENDMENT.** Section 54-17-40 of the North Dakota Century Code is amended and reenacted as follows:
- 54-17-40. Housing incentive fund Continuing appropriation Report to budget
 section.
 - 1. The housing incentive fund is created as a special revolving fund at the Bank of North Dakota. The housing finance agency may direct disbursements from the fund and a continuing appropriation from the fund is provided for that purpose.
 - a. After a public hearing, the housing finance agency shall create an annual allocation plan for the distribution of the fund. At least twenty-five fifteen percent of

31

5.

1 the fund must be used to assist developing communities to address an unmet 2 housing need or alleviate a housing shortage. 3 b. The annual allocation plan must give first priority through its scoring and ranking 4 process to housing for essential service workers. For purposes of this subsection. 5 "essential service workers" means individuals employed by a city, county, school 6 district, medical or long-term care facility, the state of North Dakota, or others as 7 determined by the housing finance agency who fulfill an essential public service. 8 The second priority in the annual allocation plan must be to provide housing for 9 individuals and families of low or moderate income. For purposes of this second 10 priority, eligible income limits are determined as a percentage of median family 11 income as published in the most recent federal register notice. Under this second 12 priority, the annual allocation plan must give preference to projects that benefit 13 households with the lowest income and to projects that have rent restrictions at 14 or below department of housing and urban development published federal fair 15 market rents or department of housing and urban development section 8 16 payment standards. 17 3. The housing finance agency shall adopt guidelines for the fund so as to address 18 unmet housing needs in this state. Assistance from the fund may be used solely for: 19 New construction, rehabilitation, or acquisition of a multifamily housing project; a. 20 b. Gap assistance, matching funds, and accessibility improvements; 21 Assistance that does not exceed the amount necessary to qualify for a loan using C. 22 underwriting standards acceptable for secondary market financing or to make the 23 project feasible; and 24 d. Rental assistance, emergency assistance, or targeted supportive services 25 designated to prevent homelessness. 26 4. Eligible recipients include units of local, state, and tribal government; local and tribal 27 housing authorities; community action agencies; regional planning councils; and 28 nonprofit organizations and for-profit developers of multifamily housing. Individuals 29 may not receive direct assistance from the fund.

Except for subdivision d of subsection 3, assistance is subject to repayment or

recapture under the guidelines adopted by the housing finance agency. Any

1 assistance that is repaid or recaptured must be deposited in the fund and is 2 appropriated on a continuing basis for the purposes of this section. 3 The agency may collect a reasonable administrative fee from the fund, project 6. 4 developers, applicants, or grant recipients. The origination fee assessed to grant 5 recipients may not exceed five percent of the project award. 6 The housing finance agency shall maintain a register reflecting the number of housing 7. 7 units owned or master leased by cities, counties, school districts, or other employers 8 of essential service workers. This register must also reflect those entities that are 9 providing rent subsidies for their essential workers. 10 8. Upon request, the housing finance agency shall report to the industrial commission 11 regarding the activities of the housing incentive fund. 12 9.8. At least once per biennium, the housing finance agency shall provide a report to the 13 budget section of the legislative management regarding the activities of the housing 14 incentive fund. The report must include the following: 15 The overall number of units owned, master leased, or subsidized by political 16 subdivisions or other employers of essential service workers; and 17 b. A listing of projects approved and the number of units within those projects that 18 provide housing for essential service workers. 19 SECTION 22. AMENDMENT. Subdivision f of subsection 1 of section 57-51-15 of the North 20 Dakota Century Code is amended and reenacted as follows: 21 For the period beginning September 1, 2017, and ending August 31, 2019, f. (1) 22 the state treasurer shall allocate four percent of the amount available under 23 this subsection to the abandoned oil and gas well plugging and site 24 reclamation fund, but not in an amount exceeding four million dollars per 25 fiscal year and not in an amount that would bring the balance in the fund to 26 more than one hundredfifty million dollars. 27 After August 31, 2019, the state treasurer shall allocate four percent of the (2) 28 amount available under this subsection to the abandoned oil and gas well 29 plugging and site reclamation fund, but not in an amount exceeding seven 30 million five hundred thousand dollars per fiscal year and not in an amount

1 that would bring the balance in the fund to more than one hundred fifty 2 million dollars. 3 **SECTION 23. AMENDMENT.** Section 7 of House Bill No. 1435, as approved by the 4 sixty-sixth legislative assembly, is amended and reenacted as follows: 5 SECTION 7. TRANSFER - BANK OF NORTH DAKOTA PROFITS -6 STATEWIDE INTEROPERABLE RADIO NETWORK FUND. The After other moneys 7 in the statewide interoperable radio network fund, the transfer of \$20,000,000 from the 8 strategic investment and improvements fund, and the \$80,000,000 line of credit have 9 been used, the industrial commission shall transfer the sum of \$20,000,000 from the 10 current earnings and accumulated undivided profits of the Bank of North Dakota to the 11 statewide interoperable radio network fund, during the period beginning with the 12 effective date of this Act, and ending June 30, 2021. 13 SECTION 24. EXEMPTION - OIL AND GAS TAX REVENUE ALLOCATIONS - NORTH 14 **DAKOTA OUTDOOR HERITAGE FUND.** Notwithstanding the provisions of section 57-51-15 15 relating to the allocations to the North Dakota outdoor heritage fund, for the period beginning 16 September 1, 2019, and ending August 31, 2021, the state treasurer shall allocate eight percent 17 of the oil and gas gross production tax revenue available under subsection 1 of section 18 57-51-15 to the North Dakota outdoor heritage fund, but not in an amount exceeding 19 \$7,500,000 per fiscal year. 20 SECTION 25. EXEMPTION - OIL AND GAS TAX REVENUE ALLOCATIONS - OIL AND 21 GAS RESEARCH FUND - PILOT PROJECT FOR UNDERGROUND GAS STORAGE. 22 1. Notwithstanding the provisions of section 57-51.1-07.3 relating to the allocations to the 23 oil and gas research fund, for the period beginning August 1, 2019, and ending 24 July 31, 2021, the state treasurer shall deposit two percent of the oil and gas gross 25 production tax and oil extraction tax revenues, up to \$16,000,000, into the oil and gas 26 research fund before depositing oil and gas tax revenues under section 57-51.1-07.5. 27 2. Pursuant to the continuing appropriation in section 57-51.1-07.3, the industrial 28 commission shall use \$6,000,000, or so much of the sum as may be necessary, from 29 the oil and gas research fund to contract with the energy and environmental research 30 center for pilot projects relating to the underground storage of produced natural gas. 31 The pilot projects may include studies and demonstration projects. During the 2019-20

1 interim, the energy and environmental research center shall provide quarterly reports 2 to the industrial commission and at least one report to the legislative management 3 regarding the results and recommendations of the pilot project. 4 SECTION 26. EXEMPTION - INDUSTRIAL COMMISSION FUND. The amount of 5 \$1,103,779 appropriated to the industrial commission in subdivision 1 of section 1 of chapter 39 6 of the 2017 Session Laws and transferred pursuant to section 8 of chapter 39 of the 7 2017 Session Laws is not subject to the provisions of section 54-44.1-11. Any unexpended 8 funds from this appropriation are available to the industrial commission for administrative 9 services rendered by the commission during the biennium beginning July 1, 2019, and ending 10 June 30, 2021. 11 SECTION 27. EXEMPTION - SURVEY REVIEW - STRATEGIC INVESTMENT AND 12 **IMPROVEMENTS FUND.** The amount of \$800,000 appropriated from the strategic investment 13 and improvements fund in section 2 of chapter 426 of the 2017 Session Laws is not subject to 14 section 54-44.1-11. Any unexpended funds from this appropriation are available to the industrial 15 commission for expert legal testimony associated with the survey review during the biennium 16 beginning July 1, 2019, and ending June 30, 2021. 17 SECTION 28. LIGNITE RESEARCH, DEVELOPMENT, AND MARKETING PROGRAM -18 LIGNITE MARKETING FEASIBILITY STUDY. The amount of \$4,500,000 from the lignite 19 research fund, or so much of the amount as may be necessary, may be used for the purpose of 20 contracting for an independent, nonmatching lignite marketing feasibility study or studies that 21 determine those focused priority areas where near-term, market-driven projects, activities, or 22 processes will generate matching private industry investment and have the most potential of 23 preserving existing lignite production and industry jobs or that will lead to increased 24 development of lignite and its products and create new lignite industry jobs and economic 25 growth for the general welfare of this state. Moneys appropriated pursuant to this section also 26 may be used for the purpose of contracting for nonmatching studies and activities in support of 27 the lignite vision 21 program; for litigation that may be necessary to protect and promote the 28 continued development of lignite resources; for nonmatching externality studies and activities in 29 externality proceedings; or other marketing, environmental, or transmission activities that assist 30 with marketing of lignite-based electricity and lignite-based byproducts. Moneys needed for the

development of lignite resources.

13

- 1 purposes stated in this section are available to the industrial commission for funding projects, 2 processes, or activities under the lignite research, development, and marketing program. 3 SECTION 29. HEDGING STRATEGIES STUDY - BANK OF NORTH DAKOTA - REPORT 4 TO LEGISLATIVE ASSEMBLY. During the 2019-20 interim, the Bank of North Dakota shall 5 conduct a study on the use of various hedging strategies to protect the state from volatile 6 swings in oil prices. Before January 15, 2021, the Bank of North Dakota shall report the results 7 of its study to the appropriations committees of the sixty-seventh legislative assembly. 8 SECTION 30. LEGISLATIVE INTENT - LIGNITE RESEARCH FUND - LIGNITE 9 **LITIGATION.** It is the intent of the sixty-sixth legislative assembly that at least \$500,000 of the 10 funding in section 28 of this Act and any funding deposited in the lignite research fund related to 11 successful litigation is available from the lignite research fund to be used to pay fees associated 12 with lignite litigation that may be brought by the state to protect and promote the continued
- SECTION 31. EMERGENCY. Sections 11, 15, and 20 of this Act are declared to be an emergency measure.