

10P

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Exhibit No. ____
Issue: Project Details; General Project Information; and Transmission
Witness: Timothy N. Wilson
Type of Exhibit: Direct Testimony
Sponsoring Party: The Empire District Electric Company
Case No. EA-2019-0118
Date Testimony Prepared: November 18, 2018

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**Before the Public Service Commission
of the State of Missouri**

Direct Testimony

of

**Timothy N. Wilson
November 18, 2018**



Liberty Utilities®
EMPIRE DISTRICT

Empire Exhibit No. 10P
Date 4-8-19 Reporter NT
File No. EA-2019-0010

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LIST OF SCHEDULES IN SUPPORT OF DIRECT TESTIMONY

TNW-1	Legal Description of Area and Route for Neosho Ridge Wind Project
TNW-2A	Map of Area for Neosho Ridge
TNW-2B	Map of Route for Neosho Ridge
TNW-3	A list of all electric, gas, and telephone conduit, wires, cables, and lines of regulated and nonregulated utilities, railroad tracks, and each underground facility, as defined in Section 319.015, RSMo, which the proposed construction will cross for Neosho Ridge Wind Project
TNW-4 HC	Permitting Due Diligence Memo

1 **I. INTRODUCTION**

2 **Q. PLEASE STATE YOUR NAME AND BUSINESS ADDRESS.**

3 A. My name is Timothy N. Wilson and my address is 602 Joplin Street, Joplin, Missouri,
4 64801.

5 **Q. WHO IS YOUR EMPLOYER AND WHAT POSITION DO YOU HOLD?**

6 A. I am employed by Liberty Utilities Service Corp. as the Central Region Director of Electric
7 Operations – Services. My primary responsibilities include managing large capital projects
8 in energy supply and operations for The Empire District Electric Company (“Empire” or
9 “Company”), ensuring compliance for Empire’s generation fleet and integrating Empire’s
10 projects in the Company’s regulatory strategy.

11 **Q. PLEASE DESCRIBE YOUR EDUCATIONAL AND PROFESSIONAL
12 BACKGROUND.**

13 A. I graduated from Pittsburg State University in 2000, with a Bachelor of Science in
14 Education, Mathematics and from Missouri State University in 2010 with a Master of
15 Science in Project Management. In October of 1999, I was hired by the Company as an
16 Associate Planning Analyst in the Strategic Planning Department. I have held various
17 other positions within the Company including Planning Analyst, Energy Trader, Energy
18 Supply Planning and Operations Analyst, and Manager of Renewable and Strategic
19 Initiatives. In 2010, I was named Director of Environmental, Projects and Integration
20 Management and held that position until I moved into my current role.

21

22 **II. PURPOSE**

23 **Q. WHAT IS THE PURPOSE OF YOUR DIRECT TESTIMONY IN THIS CASE?**

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1 A. The purpose of my testimony is to provide the specific project information surrounding the
2 Company's application for a certificate of convenience and necessity ("CCN") related to a
3 wind generation project near Empire's service territory (the "Wind Project") that Empire
4 seeks to acquire from Neosho Ridge Wind Joint Venture, LLC ("NRWJV") pursuant to a
5 Purchase and Sale Agreement. A copy of this Purchase and Sale Agreement is attached to
6 the Direct Testimony of Todd Mooney.
7

8 **III. THE WIND PROJECT**

9 **Q. FOR WHAT WIND PROJECT IS EMPIRE SEEKING A CCN?**

10 A. Empire is seeking a CCN for Neosho Ridge in this case. This Wind Project is located near
11 Empire's service territory and will reduce the risk of transmission upgrades and congestion
12 pricing in the Southwest Power Pool Integrated Marketplace.

13 **Q. WHERE WILL THE WIND PROJECT BE LOCATED?**

14 A. The Neosho Ridge facility and associated generation tie line are located in the southeast
15 corner of the state of Kansas in Neosho County.

16 **Q. WHAT IS THE PROPOSED CONSTRUCTION TIME LINE FOR THE WIND
17 PROJECT?**

18 A. As with the development of any energy generation project, the first step is to prepare the
19 physical site for construction. We expect that NRWJV will begin to perform site
20 development activities in December of 2018, such as geotechnical work to assess the site
21 for the optimal layout of wind turbines as well as complete permitting requirements that
22 must be in place prior to the start of construction. Actual physical construction of the sites
23 will not begin until Empire has obtained a CCN in this docket. In order for the Wind

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1 Project to be in service no later than December 31, 2020, to achieve 100% eligibility for
2 Production Tax Credits (PTCs), physical construction is targeted to begin in the latter half
3 of 2019.

4 **Q. WHEN WILL THE WIND PROJECT BE PLACED IN SERVICE?**

5 A. The Wind Project will be placed in service by NRWJV once Empire has received a
6 Commercial Operation Date Certificate delivered by an Independent Engineer (to be
7 selected by NRWJV). I expect this to occur by December 31, 2020, the deadline for
8 eligibility of 100% of federal PTCs.

9 **Q. ARE THERE CONSEQUENCES IF THERE IS A DELAY IN NRWJV'S**
10 **CONSTRUCTION OF THE WIND PROJECT?**

11 A. The primary impact of any delay in construction of the Wind Project relates to PTC
12 eligibility. *** _____

13 _____

14 _____

15 _____ . *** This framework
16 ensures Empire's customers are protected against construction delays.

17 **Q. IF THERE ARE PURCHASE PRICE REDUCTIONS, WILL THOSE LOWER**
18 **COSTS HAVE AN IMPACT ON CUSTOMER RATES?**

19 A. Yes. If there are purchase price reductions, the amount of money due at closing will be
20 lower. That lower price will be reflected in the rate base for the Wind Project, which will
21 ultimately be captured in customer rates, thus benefitting customers.

22 **Q. PLEASE DESCRIBE THE NEOSHO RIDGE WIND PROJECT.**

1 A. The Neosho Ridge Wind Project will be constructed in southeast Kansas, specifically in
2 Neosho County. The point of interconnection for the generation tie line will be a new
3 substation on Westar's Neosho-to-Caney River 345 kV transmission line. Neosho Ridge
4 will have a capacity of approximately 300 MW.

5 **Q. WHAT IS THE PRECISE LOCATION OF THE NEOSHO RIDGE WIND**
6 **PROJECT?**

7 A. Attached as Schedule TNW-1 is the legal descriptions of the area and route for the Neosho
8 Ridge Wind Project for which Empire seeks a CCN in this case. Also attached as Schedule
9 TNW-2A and Schedule TNW-2B are a map of the area and route, respectively, for the
10 Neosho Ridge Wind Project.

11 **Q. WILL THE PROPOSED CONSTRUCTION CROSS ANY ELECTRIC, GAS, OR**
12 **TELEPHONE CONDUIT, WIRES, CABLES, OR LINES OF REGULATED AND**
13 **NONREGULATED UTILITIES, RAILROAD TRACKS, OR UNDERGROUND**
14 **FACILITIES?**

15 A. Yes. Attached as Schedule TNW-3 is a list of all electric, gas, and telephone conduit,
16 wires, cables, and lines of regulated and nonregulated utilities, railroad tracks, and each
17 underground facility, as defined in Section 319.015, RSMo, which the proposed
18 construction will cross for the Neosho Ridge Wind Project.

19 **Q. PLEASE DESCRIBE THE ASSETS TO BE CONSTRUCTED AS A PART OF THE**
20 **NEOSHO RIDGE WIND PROJECT.**

21 A. The Neosho Ridge Wind Project will consist of approximately one hundred forty wind
22 turbine generators and the infrastructure necessary for these generators to operate as an
23 integrated energy production facility and deliver energy to the generation system. Each

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1 turbine consists of a foundation, tower, nacelle, hub and blades. The nacelle contains a
2 gearbox and the generator. There will be an underground communications network, to
3 allow monitoring and control of each turbine. There will also be an underground collection
4 network that takes the energy generated from each turbine to the project substation. The
5 project substation consists of a large transformer, protective relays, electrical buswork,
6 circuit breakers and reactive compensation devices, if required. An approximately 9-mile
7 345 kV generation tie line will be constructed to carry energy from the project substation
8 to the point of interconnection at a new substation on Westar's Neosho-to-Caney River 345
9 kV transmission line. Infrastructure to allow maintenance of the turbines will also have to
10 be constructed. This will mainly consist of roads for ease of access but may also include a
11 maintenance building. The plans and specifications for the Neosho Ridge Wind Project
12 are found in **Annex 5** to the Purchase and Sale Agreement.

13 **Q. HOW AND BY WHOM WILL THE NEOSHO RIDGE PROJECT BE**
14 **CONSTRUCTED?**

15 A. Neosho Ridge will be constructed by an EPC contractor to be selected by the project
16 company. The project company is a limited liability corporation that will be created for a
17 single purpose: to acquire the project development assets from Empire and complete the
18 development, engineering, procurement and commissioning activities necessary for the
19 wind farm to commence commercial operation and be placed in service. After December
20 31, 2020, an Empire-owned holding company will purchase the project company, thus
21 becoming the owner of the wind farm.

22 **Q. DOES EMPIRE RETAIN ANY RESPONSIBILITIES THAT RELATE TO THE**
23 **DEVELOPMENT OF THE WIND PROJECT?**

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1 A. No. NRWJV will be responsible for all activities relating to development of the Neosho
2 Ridge Wind Project.

3 **Q. WILL ANY GOVERNMENTAL CONSENTS, FRANCHISES OR OTHER**
4 **APPROVALS BE REQUIRED FOR THE CONSTRUCTION OF THESE WIND**
5 **PROJECTS?**

6 A. Yes. In addition to the authority requested by this Application, Empire will be responsible
7 for obtaining certain Arkansas Public Service Commission, a Certificate of Convenience
8 and Necessity from the Kansas Corporation Commission for the generation tie line and any
9 use of power generated by the Wind Project by any buildings located at the Neosho Ridge
10 Wind Farm, as well as Federal Energy Regulatory Commission authority. NRWJV is
11 responsible for obtaining governmental consents or approvals prior to the Purchase and
12 Sale Agreement closing, as outlined in Section 4.5 of the Purchase and Sale Agreement.

13

14 **IV. GENERAL PROJECT INFORMATION**

15 **Q. HOW DOES EMPIRE PLAN TO OPERATE AND MAINTAIN THE WIND**
16 **PROJECTS ONCE THEY HAVE BEEN ACQUIRED?**

17 A. Empire will monitor and operate the Wind Project from a single location, utilizing current
18 employees, if possible. Due to warranty provisions, maintenance will be performed by the
19 turbine original equipment manufacturer (“OEM”) under a service and maintenance
20 agreement (“SMA”). ** _____

21 _____

22 _____.**

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1 Q. WHAT ARE THE COMPANY'S PLANS FOR THE CONTINUATION OR
2 RESTORATION OF SAFE AND ADEQUATE SERVICE IF THERE ARE
3 SIGNIFICANT, UNPLANNED OUTAGES ASSOCIATED WITH THE WIND
4 PROJECTS?

5 A. Because Empire participates in the Southwest Power Pool's Integrated Marketplace, an
6 outage at the Wind Project will not result in service interruption. Also, Empire has more
7 than a century of experience in operating and maintaining electric generating facilities.
8 This experience will be put to use as outage causes are diagnosed, safe and effective
9 restoration measures are implemented, and root causes are identified to increase reliability.
10 If it is determined that outages are caused by a manufacturing or construction defect,
11 Empire will use all remedies available under the Purchase and Sale Agreement or the
12 Turbine Supply Agreement to resolve the problem.

13 Q. HAS EMPIRE TAKEN ANY STEPS TO ASSESS AND ADDRESS ANY WILDLIFE
14 CONSERVATION ISSUES THAT MAY BE ASSOCIATED WITH THE
15 PROJECT?

16 A. NRWJV will be responsible for assessing and addressing any wildlife conservation issues
17 associated with the Neosho Ridge Wind Project. However, Empire did perform due
18 diligence on the status of the current developer's efforts regarding wildlife conservation.

19 Q. WHAT IS THE STATUS OF THESE WILDLIFE CONSERVATION EFFORTS?

20 A. Empire has taken steps to carefully assess what issues may exist. Attached as Schedule
21 TNW-4 HC is a diligence memo describing the current developer's permitting activities
22 (including wildlife conservation). Schedule TNW-4 HC has been identified as Highly
23 Confidential in accordance with the Motion for Protective Order.

1 **Q. WILL ACTIVITIES IN REGARD TO WILDLIFE CONSERVATION CONTINUE**
2 **AFTER CONSTRUCTION OF THE PROJECTS IS COMPLETE?**

3 A. Yes. Empire will implement any active mitigation measures identified by the U.S. Fish
4 and Wildlife Service to minimize the impact that operation of the projects has on any
5 listed species.

6 **V. TRANSMISSION**

7 **Q. WHAT TRANSMISSION MUST BE CONSTRUCTED AS A PART OF THE**
8 **NEOSHO RIDGE WIND PROJECT?**

9 A. Approximately 9 miles of 345 kV generation tie line will have to be constructed in
10 conjunction with this project.

11 **Q. WHAT ARE THE PLANS FOR CONSTRUCTION OF THIS GENERATION TIE**
12 **LINE?**

13 A. The generation tie line will be constructed by a contractor to be selected by the project
14 company. The specifications for the generation tie line can be found in Annex 5 to the
15 Purchase and Sale Agreement.

16 **Q. WHAT IS THE STATUS OF THE INTERCONNECTION SERVICE REQUEST**
17 **FOR THE WIND PROJECT?**

18 A. Applications for interconnection of the Wind Project have been accepted for inclusion in
19 DISIS-2017-001, which began in late September 2018. Results of the first round of
20 modeling are expected in the second quarter of 2019. Due to the late start of this study, the
21 current developer has filed an interim interconnection requests. The interim availability
22 studies required for these interim interconnection requests will identify required network
23 upgrades before they will be identified by the DISIS, helping to mitigate timeline risk due

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1 to the schedule overruns that have become a common feature of the Southwest Power
2 Pool's interconnection process.

3 **Q. DOES THIS CONCLUDE YOUR DIRECT TESTIMONY?**

4 **A. Yes, it does.**

SCHEDULE TNW-1

NEOSHO RIDGE LEGAL DESCRIPTIONS

Area

Township 28 South, Range 17 East

Sections 1, 36

Township 28 South, Range 18 East

Sections 31, 32

Township 28 South, Range 19 East

Sections 27, 28, 29, 31, 32, 33, 34

Township 29 South, Range 19 East

Sections 2, 3, 4, 5, 6, 7, 8, 9, 10, 15, 16, 17, 18, 19, 20, 21, 22, 27, 28, 29, 30, 31, 32, 33, 34, 35, 36

Township 29 South, Range 18 East

Sections 1, 2, 3, 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, 32, 33, 34, 35, 36

Township 29 South, Range 17 East

Sections 1, 11, 12, 13, 14, 24

Township 30 South, Range 18 East

Sections 1, 2, 3, 4, 5, 8, 9, 10, 11, 12

Township 30 South, Range 19 East

Sections 1, 2, 3, 4, 5, 6, 7, 8, 9, 10, 11, 12, 13, 14, 15, 18, 19, 24, 25, 30, 31, 36

Township 30 South, Range 20 East

Sections 7, 18

Generation Tie Route

Township 29 South, Range 19 East

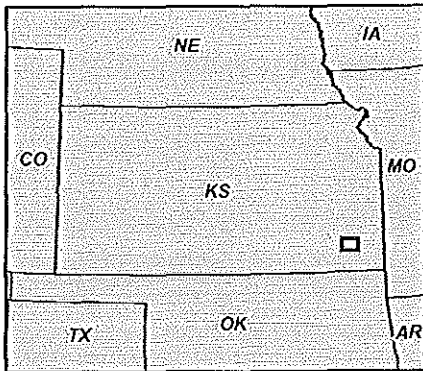
Sections 31, 33

Township 30 South, Range 18 East


Section 1

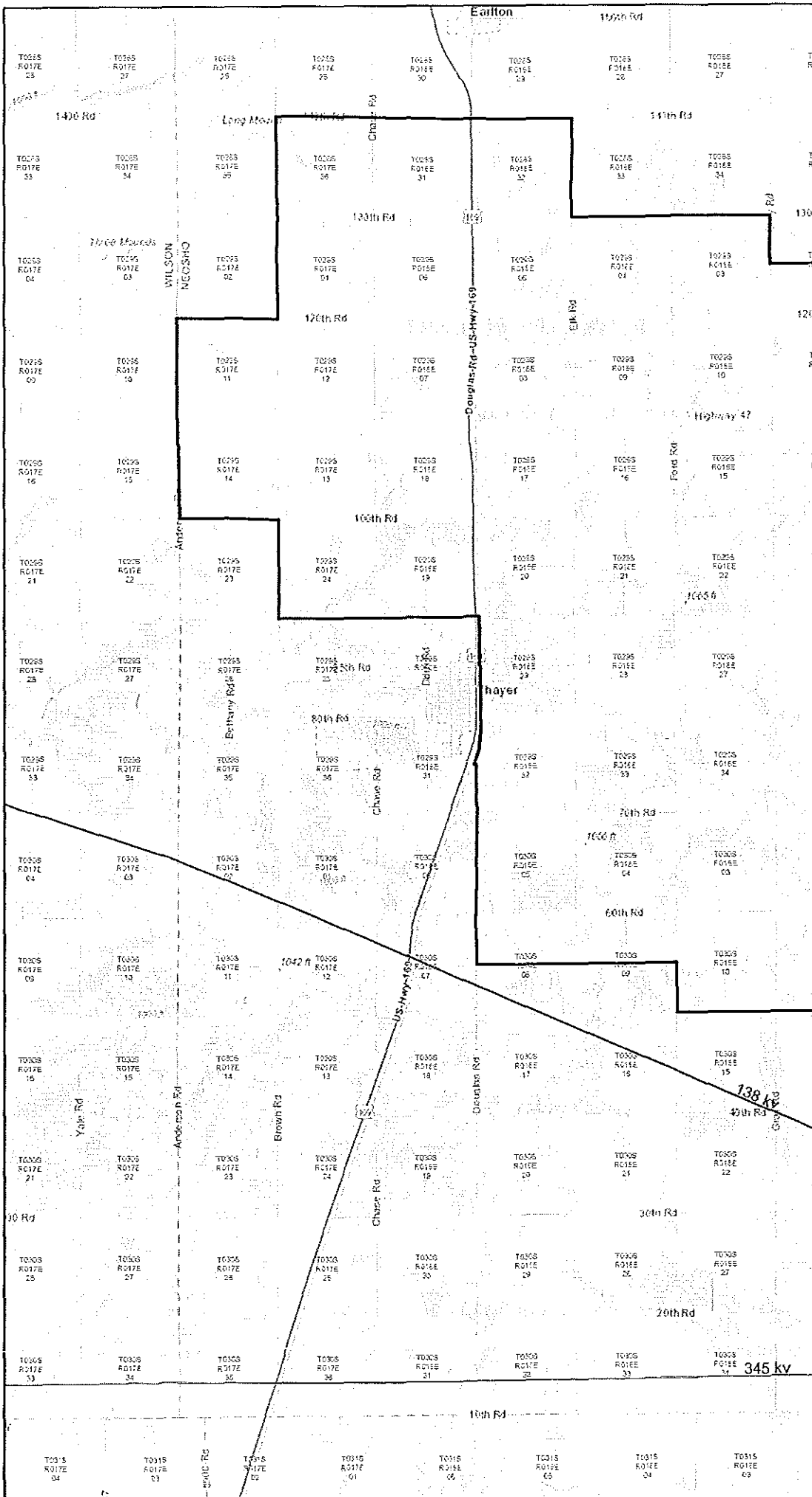
Township 30 South, Range 19 East

Sections 3, 4, 6, 7, 10, 12, 13, 14, 15, 18, 19, 24, 25, 30, 31, 36



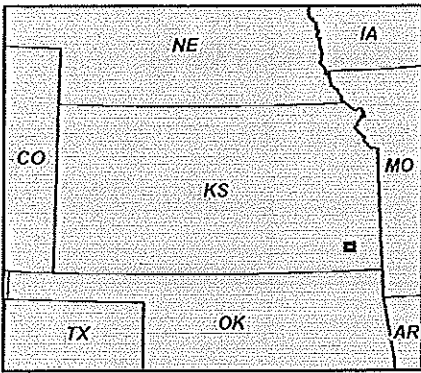
Neosho Ridge

 Project Boundary



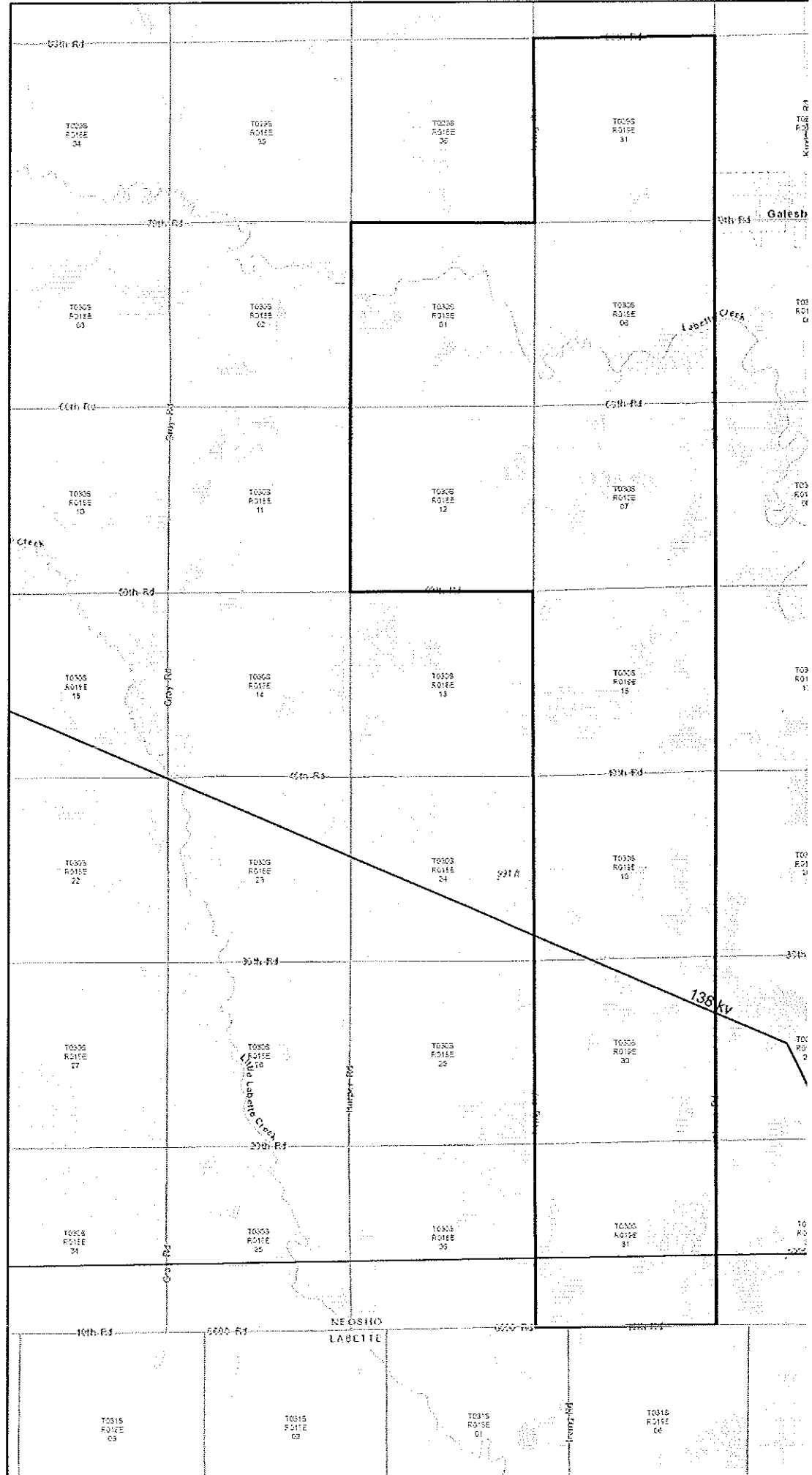
Date: 11/12/2018 Author: HVS CONFIDENTIAL
 Coordinate System: NAD 1983 StatePlane Kansas South FIPS 1502 Feet
 Projection: Lambert Conformal Conic
 Datum: North American 1983
 Units: Foot US





Neosho Ridge

TROW Sections



Date: 11/12/2018 Author: HVS CONFIDENTIAL
 Coordinate System: NAD 1983 StatePlane Kansas South FIPS 1502 Feet
 Projection: Lambert Conformal Conic
 Datum: North American 1983
 Units: Foot US



SCHEDULE TNW-3**Utility Crossings for Neosho Ridge**

<u>NAME</u>	<u>COUNTY</u>
ATMOS ENERGY	Neosho County
ATT DISTRIBUTION	Neosho County
CRAW-KAN TELEPHONE	Neosho County
CITY OF GALESBURG	Neosho County
HEARTLAND REC	Neosho County
KANSAS GAS SERVICE	Neosho County
WESTAR ENERGY	Neosho County
NEOSHO RWD 4	Neosho County
RWD 6 NEOSHO	Neosho County
RIVER ROCK OPERATING, LLC	Neosho County
PUBLIC WHOLESALE WATER 23	Neosho County
CENTURYLINK (CTLCL)	Neosho County
ZAYO	Neosho County

SCHEDULE TNW-4

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