

BEFORE THE NEW MEXICO PUBLIC REGULATION COMMISSION

**IN THE MATTER OF THE JOINT APPLICATION)
FOR THE LOCATION APPROVAL OF THE)
EXPANDED CORONA WIND PROJECTS AND THE)
REVISED CORONA GEN-TIE SYSTEM AND FOR)
RIGHT-OF-WAY WIDTH APPROVAL PURSUANT)
TO THE PUBLIC UTILITY ACT, NMSA 1978, §62-9-)
3)**

Case No. 21-00 ___-UT

**ANCHO WIND LLC, COWBOY MESA LLC, ,)
GALLINAS MOUNTAIN WIND LLC, MESA)
CANYONS WIND, LLC, PATTERN SC HOLDINGS)
LLC, VIENTO LOCO LLC,)
)
)**

JOINT APPLICANTS.

DIRECT TESTIMONY OF NATHAN OLDAY

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

2 A. My name is Nathan A. Olday. My business address is 1700 West Loop South, Houston,
3 Texas 77027

4 Q. **BY WHOM ARE YOU EMPLOYED AND IN WHAT CAPACITY?**

5 A. I am employed by Burns & McDonnell Engineering Company, Inc. (“Burns
6 &McDonnell”). I hold the position of Department Manager within the Houston
7 Environmental Services Group.

8 Q. **ON WHOSE BEHALF ARE YOU APPEARING IN THIS PROCEEDING?**

9 A. I am appearing on behalf of the Joint Applicants in this proceeding.

10 Q. **PLEASE DESCRIBE YOUR EDUCATIONAL AND WORK BACKGROUND**

11 A. I am a 2000 graduate of the Texas A&M University with a Bachelor of Science in
12 Wildlife Ecology and Management. I have been working in the environmental consulting
13 industry since 2001 and joined Burns & McDonnell as Senior Project Manager in 2014.
14 My previous work experience includes positions as an Environmental Group Manager
15 and Project Manager for environmental consulting firm in Houston, Texas. I have
16 managed major environmental projects and project teams, including teams of
17 subcontractors, and have prepared documents per compliance with the National
18 Environmental Policy Act (NEPA), such as environmental impact reports and statements,
19 environmental assessments, and baseline studies. My work experience includes land
20 planning and Energy projects in oil and gas, electric utility, surface transportation, and
21 commercial markets and includes permitting and consultation for compliance with

1 Federal and state regulations such as the Clean Water Act, Endangered Species Act, and
2 National Historic Preservation Act

3 **Q. WHAT IS THE PURPOSE OF YOUR TESTIMONY**

4 A. My testimony supports the Joint Applicants’ application for location control approval by
5 the New Mexico Public Regulation Commission (“Commission”) of the 2021 Corona
6 Wind Update, which includes both the 2021 Revised Corona Gen-Tie System and 2021
7 Corona Generation Expansion, pursuant to NMSA 1978, §§62-9-3, 62-9-3.2 and
8 Commission Rule 17.9.592 NMAC.

9 **Q. HAVE YOU PREVIOUSLY TESTIFIED BEFORE ANY REGULATORY**
10 **AUTHORITIES?**

11 A. I have not provided formal testimony before. However, in my role with Burns &
12 McDonnell, I commonly attest to local, state, and Federal agencies concerning baseline
13 studies performed and conclusions reached pursuant to applications for various regulatory
14 approvals.

15 **Q. WHAT EXHIBIT DO YOU SPONSOR AS PART OF YOUR TESTIMONY?**

16 A. I co-sponsor Exhibit NO-1, which is the comprehensive environmental report prepared by
17 Burns & McDonnell regarding the proposed 2021 Corona Wind Update which is the
18 subject of this proceeding. (“Environmental Report”). The Environmental Report also
19 includes an analysis of lands that were previously included in the location approval for
20 generation that was granted for the Mesa Canyons Project in NMPRC Case No. 17-
21 00221-UT.

1 Q. **WAS EXHIBIT NO-1 PREPARED BY YOU OR UNDER YOUR SUPERVISION?**

2 A. Yes. The entire document was prepared under my direct supervision and I was also
3 responsible for preparing various aspects of the document.

4 Q. **FOR EASE OF REVIEW PLEASE EXPLAIN THE VARIOUS TERMS YOU USE**
5 **WITH RESPECT TO THE JOINT APPLICATION THAT YOU USE IN YOUR**
6 **TESTIMONY.**

7 A. I believe it is important to make certain the references in my testimony are the same as in
8 the Joint Application. The term “2021 Corona Generation Expansion” refers to the new
9 generation that is being added to the Corona Wind Project and for which location
10 approval is sought in this proceeding. The term “2021 Revised Corona Gen-Tie System”
11 refers to the modifications and expansion of the Corona Gen-Tie System (previously
12 approved in earlier cases) for which location approval is sought in this proceeding. The
13 term “2021 Corona Wind Update Area” refers to the area that encompasses the 2021
14 Corona Generation Expansion, the 2021 Revised Corona Gen-Tie System and the Mesa
15 Canyons Wind Project. The entire area encompassed by the 2021 Corona Wind Update
16 has been studied and is reflected in the Environmental Report which I am sponsoring in
17 this proceeding. Finally, I use the terms “Pattern Energy” and “Joint Applicants”
18 interchangeably throughout my testimony and in the Environmental Report.

19 II. **THE 2021 CORONA WIND UPDATE ENVIRONMENTAL REPORT**

20 Q. **WHY WAS THE ENVIRONMENTAL REPORT PREPARED?**

21 A. The Environmental Report in Exhibit NO-1 was prepared to comply with the
22 requirements of NMSA 1978, §62-9-3 (“Siting Statute”) and Commission Rule 17.9.592

1 NMAC (“Location Rule”) regarding the 2021 Revised Corona Gen-Tie System and 2021
2 Corona Generation Expansion. The Environmental Report analyzes the location of the
3 2021 Revised Corona Wind Gen-Tie System, 2021 Corona Generation Expansion, and
4 previously approved generation footprint for the Mesa Canyons Wind Project that was
5 approved by the Commission in NMPRC Case No. 17-00221-UT. The Mesa Canyons
6 Wind Project was subsequently acquired by Pattern Energy and is one of the Joint
7 Applicants in this proceeding. The total land area evaluated in the Environmental Report,
8 consists of approximately 222,723 acres of land located within Torrance and Lincoln
9 Counties, New Mexico. This land area includes Mesa Canyons (134,458 acres), the 2021
10 Revised Gen-Tie System (38,165 acres) and the 2021 Corona Generation Expansion
11 (50,100 acres).

12 **Q. PLEASE DESCRIBE THE RELATIONSHIP BETWEEN THE CONTENT AND**
13 **ANALYSIS IN THE ENVIRONMENTAL REPORT AND THE VARIOUS**
14 **STUDIES THAT HAVE BEEN CONDUCTED AND WILL BE CONDUCTED**
15 **THAT ARE REFERENCED IN THE ENVIRONMENTAL REPORT?**

16 A. The Environmental Report relies upon a combination of conservation measures identified
17 therein as well as desktop analysis and field surveys to inform its conclusions of potential
18 environmental effects of the 2021 Revised Corona Gen-Tie System. As discussed in the
19 Testimony of Adam Cernea Clark, environmental field reviews are ongoing and will
20 continue up until start of construction and additional environmental analysis and reports
21 will be prepared as project civil design is advanced.

22 **Q. PLEASE EXPLAIN YOUR UNDERSTANDING OF THE REQUIREMENTS OF**
23 **THE SITING STATUE AND THE LOCATION RULE AS RELATED TO THE**

1 **2021 CORONA GENERATION EXPANSION.**

2 A. My understanding is that the Siting Statute states that the Commission shall approve the
3 Joint Application for the location of the 2021 Corona Generation Expansion unless the
4 Commission finds that the operations of the facilities for which approval is sought will
5 not be in compliance with all applicable air and water pollution control standards and
6 regulations existing, NMSA 1978, §62-9-3(E). Similarly, the Commission’s Location
7 Rule, 17.9.592.9 NMAC, for generating facilities (“Generation Location Rule”) requires
8 an applicant to identify and show compliance, or a statement of non-compliance, with all
9 applicable air and water pollution control standards and regulations prior to beginning
10 construction and operation of the generating facilities. Sections 5.2 and 5.7 of the
11 Environmental Report provide analysis of these resources and demonstrate the Joint
12 Applicants’ compliance with the requirements of both the Siting Statute and the
13 Generation Location Rule.

14 **Q. DOES THE INFORMATION CONTAINED IN THE ENVIRONMENTAL**
15 **REPORT AND THE STUDIES UPON WHICH IT IS BASED SUPPORT THE**
16 **CONCLUSION THAT THE 2021 CORONA WIND UPDATE WILL COMPLY**
17 **WITH ALL APPLICABLE AIR AND WATER POLLUTION CONTROL**
18 **STANDARDS?**

19 A. Yes.

20 **Q. PLEASE EXPLAIN YOUR UNDERSTANDING OF THE REQUIREMENTS OF**
21 **THE SITING STATUE AND THE LOCATION RULE AS RELATED TO THE**
22 **2021 REVISED CORONA GEN-TIE SYSTEM.**

1 A. The Siting Statute and the Location Rule, 17.9.592.10 NMAC, for transmission lines
2 (“Transmission Location Rule”) identify the contents of applications for location
3 approval by the Commission of transmission lines associated with large generation
4 facilities. The Siting Statute requires the Commission to approve the location of a
5 transmission line unless the Commission finds the location will unduly impair important
6 environmental values. NMSA 1978, §62-9-3(F). Moreover, the Transmission Location
7 Rule, 17.9.592.10(E) NMAC, requires that “if preparation of a federal environmental
8 assessment or environmental impact statement is not required under NEPA in connection
9 with the transmission line, then a report, comparable to an environmental impact
10 statement, in the format prescribed in 40 C.F.R. Section 1502.10" shall be included in the
11 application. In this case, the 2021 Revised Corona Gen-Tie System does not involve any
12 federal actions that require the preparation of an environmental assessment or
13 environmental impact statement.

14 Q. **WHAT FORMAT IS PRESCRIBED BY 40 C.F.R. SECTION 1502.10?**

15 A. That federal regulation prescribes the following format:

- 16 (A) Cover sheet.
- 17 (B) Summary.
- 18 (C) Table of contents.
- 19 (D) Purpose of and need for action.
- 20 (E) Alternatives including proposed action.
- 21 (F) Affected environment.

1 (G) Environmental consequences.

2 (H) List of preparers.

3 (I) List of Agencies, Organizations, and persons to whom copies of the statement are
4 sent.

5 (J) Index.

6 (K) Appendices (if any).

7 **Q. DOES THE 2021 CORONA WIND UPDATE ENVIRONMENTAL REPORT**
8 **FOLLOW THE FORMAT PRESCRIBED BY 40 C.F.R. SECTION 1502.10?**

9 A. Yes. However, the “List of Agencies, Organizations, and persons to whom copies of the
10 statement are sent”, Section (I), is included as a separate document which is included in
11 the Testimony of Adam Cernea Clark.

12 **Q. WHAT ENVIRONMENTAL VALUES DOES THE ENVIRONMENTAL REPORT**
13 **ADDRESS REGARDING THE 2021 REVISED CORONA GEN-TIE SYSTEM?**

14 A. The Environmental Report covers each of the environmental values identified in the
15 Siting Statute and the Transmission Location Rule. According to Section M of the Siting
16 Statute, NMSA 1978, §62-9-3(M), the environmental values the Commission may
17 consider in making this determination include:

18 (1) existing plans of the state, local government, and private entities for other
19 developments at or in the vicinity of the proposed location;

20 (2) fish, wildlife, and plant life;

- 1 (3) noise emission levels and interference with communication signals;
- 2 (4) the proposed availability of the location to the public for recreational purposes,
- 3 consistent with safety considerations and regulations;
- 4 (5) existing scenic areas, historic, cultural or religious sites and structures or
- 5 archaeological sites at or in the vicinity of the proposed location; and,
- 6 (6) additional factors that require consideration under applicable federal and state laws
- 7 pertaining to the location.

8 Additionally, the Transmission Location Rule requires an application for location
9 approval of a transmission line to include testimony demonstrating that the transmission
10 line will not unduly impair important environmental values. According to the
11 Transmission Location Rule, important environmental values include, but are not limited
12 to, preservation of air and water quality, land uses, soils, flora and fauna, and water,
13 mineral, socioeconomic, cultural, historic, religious, visual, geologic and geographic
14 resources

15 **Q. DOES THE ENVIRONMENTAL REPORT COVER ALL OF THE**
16 **ENVIRONMENTAL VALUES IDENTIFIED IN THE SITING STATUTE AND**
17 **TRANSMISSION LOCATION RULE?**

18 **A.** Yes.

19 **Q. DOES THE INFORMATION CONTAINED IN THE ENVIRONMENTAL**
20 **REPORT AND THE STUDIES UPON WHICH IT IS BASED SUPPORT THE**
21 **CONCLUSION THAT THE 2021 REVISED CORONA GEN-TIE SYSTEM WILL**

1 **NOT UNDULY IMPAIR IMPORTANT ENVIRONMENTAL VALUES?**

2 A. Yes. The 2021 Revised Corona Gen-Tie System will clearly comply with the
3 requirements of the Siting Statute and the Transmission Location Rule.

4 **THE 2021 CORONA WIND UPDATE COMPLIANCE WITH AIR AND WATER**
5 **POLLUTION CONTROL STANDARDS**

6 **1. AIR POLLUTION CONTROL STANDARDS**

7 Q. **PLEASE CHARACTERIZE THE 2021 CORONA WIND UPDATE’S EXPECTED**
8 **IMPACTS ON AIR QUALITY.**

9 A. Development of the 2021 Revised Corona Gen-Tie System and 2021 Corona Generation
10 Expansion will have short-term impacts during construction. The equipment used during
11 construction will likely be powered with diesel or gasoline fuel. These combustibles
12 include pollutants such as nitrogen oxides, “NO”, carbon monoxide, “CO”, volatile
13 organic compounds, “VOCs”, particulate matter, “PM”, small amounts of “SO2” and
14 trace amounts of hazardous air pollutants. Construction contractors and their equipment
15 will be required to comply with all emissions standards. Short-term fugitive dust could
16 arise from land clearing, grading, excavation, and vehicle traffic on unpaved roads. The
17 amount of fugitive dust will depend on the amount of vehicular traffic, construction
18 activities, moisture content of the soil, and wind speed. During dry periods with high
19 winds, fugitive dust will be more prevalent than during wet periods with low winds. Dust
20 suppression methods such as watering will be used in construction zones during dry
21 periods to minimize fugitive dust impacts. The fugitive dust emissions and emissions
22 from combustion engines will be temporary (limited to the construction period), limited

1 to the construction area, and transient and likely controlled with watering, these sources
2 will not significantly contribute to reduced air quality levels in the Corona Gen-Tie Study
3 Corridor. The operation of the Corona Wind Project will result in long-term reduction of
4 air pollutants that otherwise will have been emitted into the air by conventional power
5 plants by supplanting some output from conventional power plants. Furthermore, the
6 2021 Revised Corona Gen-Tie System will facilitate the delivery of clean renewable
7 energy that has the potential to displace carbon as well as other hazardous emissions in
8 the Southwestern United States, as a result of displacing fossil-based fuel.

9 **Q. IS THE 2021 CORONA WIND UPDATE WITHIN AN AREA THAT IS IN**
10 **ATTAINMENT OF NATIONAL AND STATE AMBIENT AIR QUALITY**
11 **STANDARDS?**

12 **A.** Yes. Information obtained from the New Mexico Environment Department's Air Quality
13 Bureau, which has authority over air quality in all areas of New Mexico except Bernalillo
14 County and Tribal Lands, confirms that Torrance and Lincoln Counties, New Mexico, in
15 which the 2021 Corona Wind Update will be located, are currently in attainment of all
16 national and state ambient air quality standards.

17 **Q. WILL THE 2021 CORONA WIND UPDATE REQUIRE AIR POLLUTION**
18 **CONTROL PERMITS FOR CONSTRUCTION?**

19 **A.** Yes. One or more general construction permits, pursuant to the New Mexico Air Quality
20 Control Act (“NMAQCA”), will be required for dust suppression during construction,
21 and for aggregate crushing for use in road construction within the 2021 Corona Wind
22 Update. See NMSA 1978, §§74-2-1 et seq.

1 For the 2021 Corona Generation Expansion, one or more separate general construction
2 permits, pursuant to the NMAQCA, will also be required for the concrete batch plants for
3 wind turbine pad foundations and dust suppression during construction. The Corona
4 Wind Project will also require the aforementioned general construction permit for
5 aggregate crushing for use in road construction within the 2021 Corona Wind Update
6 Area.

7 **Q. WHEN ARE SUCH GENERAL CONSTRUCTION PERMITS TYPICALLY**
8 **OBTAINED?**

9 A. It is typical for the construction contractor to acquire such permits shortly prior to the
10 start of construction. It is my understanding that the Joint Applicants will provide copies
11 of the permits to the Commission upon request before construction has commenced.

12 **2 WATER POLLUTION CONTROL STANDARDS**

13 **Q. PLEASE CHARACTERIZE THE EXPECTED IMPACTS ON WATER**
14 **RESOURCES FROM THE 2021 CORONA WIND UPDATE.**

15 A. Energy of the 2021 Revised Corona Gen-Tie System and 2021 Corona Generation
16 Expansion will have only minimal impacts on water quality during construction and
17 should have no long-term impacts on water quality during operation. The transmission
18 facilities and structures will be sited to avoid placement near surface waters to the
19 maximum extent practicable, which are shown generally on Exhibit 6 of the
20 Environmental Report. In the event that avoidance is not possible, and any facilities
21 eventually are sited near surface waterways, the Joint Applicants will seek to permit any
22 unavoidable fill in waters of the U.S. under the Nationwide Permit Program administered

1 by the U.S. Army Corps of Engineers (“USACE”) under Section 404 of the Clean Water
2 Act (“Section 404”). In addition, the transmission facilities will be sited to avoid mapped
3 floodplain areas, shown in Exhibit 8 of the Environmental Report. The transmission
4 facilities will be sited to avoid placement on steep slopes, which will minimize erosion
5 and runoff into surface waters, to the extent practicable. Further, the Joint Applicants
6 will require implementation of a storm water management plan during construction to
7 minimize the effects of storm water runoff in the event of significant rain events. During
8 construction, water will be used to control dust on roads. The construction contractor will
9 be required to obtain any necessary water permits. Development of the 2021 Corona
10 Generation Expansion will be similar to the 2021 Revised Corona Gen-Tie System and
11 will have only minimal impacts on water quality during construction and should have no
12 long-term impacts on water quality during operation. If avoidance is not possible, and
13 any wind facilities eventually are sited near surface waterways, the Joint Applicants will
14 seek to permit any unavoidable fill in waters of the U.S. under the aforementioned
15 Nationwide Permit Program administered by the USACE under Section 404. In addition,
16 the 2021 Corona Generation Expansion will be sited to avoid mapped floodplain areas,
17 shown in Exhibit 8 of the Environmental Report. Wind energy generation is inherently a
18 nearly zero-water consumption technology. The only primary uses of water during
19 operations are for bathroom facilities for operations and maintenance workers at the
20 operation and maintenance building, plus occasional cleaning of the wind turbine blades.
21 A septic permit is expected to be obtained prior to operation. During construction, water
22 will be used to make concrete and to control dust on roads. The construction contractor
23 will be required to obtain any necessary water permits. In the long term, wind energy

1 generation will help conserve water compared to other sources of electric generation that
2 have major water use requirements.

3 **Q. WHAT WATER POLLUTION CONTROL PERMITS WILL THE 2021 CORONA**
4 **WIND UPDATE REQUIRE FOR CONSTRUCTION?**

5 A. Prior to construction, Joint Applicants will obtain coverage under one or more National
6 Pollution Discharge Elimination System (“NPDES”) Construction General Permit(s)
7 (“CGP”) from the United States Environmental Protection Agency pursuant to Section
8 402 of the Clean Water Act, 33 U.S.C. § 1342. The requirements of the CGP include, but
9 are not limited to, the operator filing a notice of intent at least 14 days before
10 commencing construction activities, preparing a Storm Water Pollution Prevention Plan
11 that describes measures to control storm water discharge during construction and the
12 implementation of standard erosion control measures and best management practices.
13 The 2021 Corona Wind Update is not reasonably expected to adversely affect surface or
14 groundwater at the site and will not require a permit under the New Mexico Water
15 Quality Control Act other than one or more septic permits.

16 **Q. WHEN ARE SUCH PERMITS TYPICALLY OBTAINED?**

17 A. As with construction-phase air quality permits, coverage under the NPDES CGP is
18 typically obtained just prior to construction, and a septic permit is obtained when
19 bathroom facilities are installed (Corona Wind Generation Expansion only). Joint
20 Applicants will obtain NPDES coverage prior to start of construction. It is my
21 understanding that the Joint Applicants will commit to filing notifications with the
22 Commission of coverage under the NPDES CGP as obtained prior to construction.

1 Q. **WHAT WATER POLLUTION CONTROL PERMITS WILL THE 2021 CORONA**
2 **WIND UPDATE REQUIRE FOR OPERATION?**

3 A. Transmission line facilities and wind energy generation facilities require almost no water
4 for the operation and generation of electricity. Accordingly, no water pollution control
5 permits are needed for operation.

6 Q. **IN SUMMARY WILL THE 2021 CORONA WIND UPDATE ALSO BE IN**
7 **COMPLIANCE WITH ALL APPLICABLE AIR AND WATER POLLUTION**
8 **CONTROL STANDARDS?**

9 A. Yes, by adhering to the mitigation measures outlined in the Environmental Report and
10 conducting pre-construction surveys and obtaining necessary local, state, and federal
11 permits before construction, the 2021 Corona Wind Update will be in compliance with all
12 applicable air and water pollution control standards.

13 3. **IMPORTANT ENVIRONMENTAL VALUES**

14 Q. **HAVE THE JOINT APPLICANTS EVALUATED THE 2021 REVISED CORONA**
15 **GEN-TIE SYSTEM'S POTENTIAL IMPACTS ON THE FACTORS THE**
16 **COMMISSION MAY CONSIDER IN DETERMINING WHETHER LOCATION**
17 **OF A TRANSMISSION LINE WILL UNDULY IMPAIR IMPORTANT**
18 **ENVIRONMENTAL VALUES?**

19 A. Yes. My company was retained to perform this analysis and it is included in the
20 Environmental Report. There has been a review of the factors provided in NMSA 1978,
21 §62-9-3(M), the Transmission Location Rule, and additional factors, which include
22 existing plans for development of the proposed location; fish, wildlife, and plant life;

1 noise levels; interference with communication signals; availability for recreational
2 purposes; scenic, historic, cultural or religious sites and structures or archeological sites;
3 cemeteries and burials; schools; military activities; aviation; soils; minerals and mining;
4 geologic and paleontological resources; roads; geographic resources; and hazardous
5 materials. The Joint Applicants included the analysis and evaluation of these factors, as a
6 matter of good business practice, throughout the entire area comprising the 2021 Corona
7 Wind Update, including the 2021 Corona Generation Expansion, the Mesa Canyons
8 Wind Project, and the 2021 Revised Corona Gen-Tie System. However, the focus of my
9 testimony and the Environmental Report is on the 2021 Revised Corona Gen-Tie System
10 which is the proper subject matter of the Commission's jurisdiction over these additional
11 environmental factors.

12 **Q. NOTWITHSTANDING THE COMMISSION'S LIMITED STATUTORY**
13 **JURISDICTION, HAS PATTERN ENERGY CONSIDERED THE POTENTIAL**
14 **IMPACTS ON THESE SAME FACTORS REGARDING THE 2021 CORONA**
15 **GENERATION EXPANSION?**

16 **A.** Yes, as I have noted in my testimony, this same level of work was performed for the
17 2021 Corona Generation Expansion even though I understand this exceeds the
18 requirements of the Siting Statute and the Generation Location Rule and such analysis is
19 only required for transmission lines associated with large capacity power plants.

20 **Q. PLEASE SUMMARIZE YOUR FINDINGS WITH RESPECT TO EXISTING**
21 **PLANS FOR OTHER DEVELOPMENT AT THE 2021 CORONA WIND UPDATE**
22 **AREA.**

1 A. The 2021 Corona Wind Update, which includes the 2021 Revised Corona Gen-Tie
2 System, is located mostly on private land owned by participating landowners, as well as
3 some state trust land. It is my understanding that wind development and ranching
4 operations constitute the planned development activities within the 2021 Corona Wind
5 Update Area. Moreover, the 2021 Corona Wind Update represents additional long-term
6 revenue for the State of New Mexico.

7 **Q. PLEASE SUMMARIZE YOUR FINDINGS WITH RESPECT TO AIR QUALITY?**

8 A. As previously explained in my testimony, all required air permits will be obtained, and
9 the 2021 Corona Wind Update is not expected to adversely impact air quality. The 2021
10 Revised Corona Gen-Tie System is anticipated to have de minimus impacts to air quality.
11 Further discussion of air resources is provided in Sections 4.2 and 5.2 of the
12 Environmental Report.

13 Additionally, the 2021 Corona Generation Expansion is also anticipated to have de
14 minimus impacts to air quality. Over time the Joint Applicants' Projects are expected to
15 improve air quality by displacing the need for traditional means of energy generation that
16 have negative impacts to air quality.

17 **Q. PLEASE SUMMARIZE YOUR FINDINGS WITH RESPECT TO WATER**
18 **QUALITY AND WATER RESOURCES?**

19 A. The 2021 Revised Corona Gen-Tie System is not anticipated to materially impair water
20 quality and water resources. As explained previously in my testimony, all required water
21 quality permits will be obtained, if needed, and the 2021 Revised Corona Gen-Tie
22 System is not expected to adversely impact water quality or water resources.

1 Furthermore, the 2021 Corona Generation Expansion is also not anticipated to have
2 material negative impacts to water quality. The 2021 Corona Wind Update is anticipated
3 to have significant positive benefits to water resources by displacing water-intensive
4 energy generation sources. Further discussion of water resources is provided in Sections
5 4.7 and 5.7 of the Environmental Report.

6 **Q. PLEASE SUMMARIZE YOUR FINDINGS WITH RESPECT TO LAND USES?**

7 A. In my testimony, I describe existing land uses and explain that the 2021 Corona Wind
8 Update facilities are expected to utilize only a small portion of the approximately 88,265-
9 acre 2021 Corona Wind Update Area, leaving the large majority of the land not utilized
10 for project infrastructure available for its existing land use, which is primarily agriculture.
11 My understanding is that Joint Applicants will locate facilities only on lands for which
12 agreements have been reached with underlying landowners. Both the 2021 Revised
13 Corona Gen-Tie System and the 2021 Corona Generation Expansion are generally
14 consistent with the land use policies of the respective counties and will comply with the
15 State Land Office (“SLO”) regulations on state trust lands that may be used in developing
16 the 2021 Corona Wind Update. Further discussion of land uses is provided in Sections
17 4.12 and 5.12 of the Environmental Report.

18 **Q PLEASE SUMMARIZE YOUR EFFORTS TO AVOID AND MINIMIZE**
19 **IMPACTS WITH RESPECT TO FLORA AND FAUNA ON THE 2021 CORONA**
20 **WIND UPDATE AREA.**

21 A. Because of the relatively modest impacts of transmission lines to wildlife habitat and
22 flora and fauna and the voluntary commitments and Best Management Practices (“BMP”)

1 practiced by Pattern Energy, the 2021 Revised Corona Gen-Tie System will not have
2 material impacts to flora and fauna. Protection measures that would be implemented to
3 reduce any potential negative flora and fauna resource impacts from construction
4 activities include those commitments described in Section 5.8 of the Environmental
5 Report. These include:

6 Bio-1: Properly disposing of trash and food debris in secured containers;

7 Bio-2: Allowing wildlife that has entered the work area to leave the area on their own;

8 Bio-3: Providing environmental awareness training to all construction personnel working
9 on the 2021 Revised Gen-Tie System;

10 Bio-4: Checking for wildlife under vehicles and equipment that have been stationary for
11 more than 1 hour and each morning prior to moving or operation;

12 Bio-5: Checking trenches, excavations, and uncapped pipe segments for wildlife;

13 Bio-6: Complying with posted speed limits;

14 Bio-7: Conducting tree/vegetation clearing outside the nesting season where feasible, to
15 discourage birds from establishing nests in the 2021 Revised Gen-Tie System work areas;

16 Bio-8: Conducting pre-construction nest surveys prior to initiating construction activities,
17 unless vegetation clearing has been completed prior to the nesting season;

18 Bio-9: Establishing an appropriate buffer zone around occupied raptor nests, as necessary
19 to minimize disturbance;

20 Bio-10: Design transmission line facilities to Avian Powerline Interaction Committee
21 (“APLIC”) guidance or similar in order to minimize electrocution and collision risk;

1 Bio-11: Micrositing will be completed during engineering design to avoid sensitive
2 biological resources;

3 Bio-12: Setbacks from sensitive biological resources will be implemented to protect
4 species habitat and time critical periods (e.g., breeding season); and

5 Bio-13: Install bird diverters near areas with increased risk for avian-collision risk, to
6 minimize collision risk for avian species.

7 A discussion of flora and fauna is also provided in Sections 4.8 and 5.8 of the
8 Environmental Report. As is discussed in greater detail in the Direct Testimony of Adam
9 Cernea Clark, the 2021 Corona Wind Update will implement voluntary avoidance
10 protocols for various biological resources, such as raptor nests. In addition to utilizing
11 voluntary environmental setbacks, Joint Applicants will follow APLIC guidance to
12 implement measures that will minimize collision risk with proper siting and electrocution
13 risk with proper transmission line engineering design. In areas of greater risk for avian
14 collisions (e.g. near wetlands) bird diverters will be installed to minimize collision risk
15 for avian species. Joint Applicant's implementation of APLIC guidance is discussed in
16 greater detail in the Direct Testimony of Adam Cernea Clark.

17 The aforementioned voluntary commitments apply to both the 2021 Revised Corona
18 Gen-Tie System and 2021 Corona Generation Expansion specifically. Due to the
19 foregoing BMPs and siting methodology discussed in the Environmental Report and the
20 Direct Testimony of Adam Cernea Clark, it is our belief that the 2021 Corona Wind
21 Update will not have material negative impacts to sensitive flora and fauna.

22 Q. **PLEASE SUMMARIZE YOUR FINDINGS WITH RESPECT TO POTENTIAL**

1 **NOISE IMPACTS.**

2 A. The 345-kV transmission system and associated transmission facilities of the 2021
3 Revised Corona Gen-Tie System is not expected to cause an undue noise burden within
4 the Corona Wind Project Area. The 2021 Revised Corona Gen-Tie System alignment
5 itself is sparsely populated and has been setback from potential receptors. As such, there
6 are no significant concentrations of homes or other receptors. Furthermore, the 2021
7 Revised Corona Gen-Tie System and the entire Corona Wind Project Area is located
8 entirely within private property of participating landowners or within state trust land.
9 Pattern Energy has worked with participating landowners to assure appropriate setbacks
10 from homes and other receptors. Wind turbines within the 2021 Corona Wind Update
11 Area will be setback from any homes and other important receptors, in accordance with
12 local ordinances, and located entirely within participating landowner properties or within
13 state trust lands. Pattern Energy has sited turbines to minimize sound-level concerns at
14 neighboring homes. Further discussion of noise is provided in Sections 4.3 and 5.3 of the
15 Environmental Report and the testimony of Greg Parent.

16 **Q. WILL THE 2021 REVISED CORONA GEN-TIE SYSTEM INTERFERE WITH**
17 **COMMUNICATION SIGNALS?**

18 A. Development and operation of the 2021 Revised Corona Gen-Tie System is not expected
19 to interfere with or impair communication signals. The beam paths identified, which are
20 depicted in Exhibit 20 of the Environmental Report, have been incorporated into the
21 preliminary site layout and disruption to the signal will be avoided in the final layout.
22 Pattern Energy conducted a review of coordinates at the north, south, east, and west
23 points of the 2021 Revised Corona Gen-Tie System, with an expanded search to 35 miles

1 from the edge of the 2021 Revised Corona Gen-Tie System endpoints, which indicates
2 that multiple microwave towers, antenna structure registration towers, or AM/FM/TV
3 towers are present. The transmission line facilities will avoid and minimize impacts to
4 AM and FM station towers to the extent practicable. Impacts with communication signals
5 will be similar for the entire 2021 Corona Wind Update Area, as previously discussed for
6 the 2021 Revised Corona Gen-Tie System. The beam paths identified, have been
7 incorporated into the preliminary wind turbine layout and disruption to the signal will be
8 avoided in the final layout. Wind turbines will be sited such that they should not interfere
9 with or interrupt these communication paths, regardless of which direction the wind
10 turbine is facing. Further discussion of communication signals is provided in Sections
11 4.14 and 5.14 of the Environmental Report.

12 **Q. WILL 2021 REVISED CORONA GEN-TIE SYSTEM IMPACT RECREATIONAL**
13 **USES?**

14 **A.** The 2021 Revised Corona Gen-Tie System is not anticipated to impair recreational uses.
15 The 2021 Revised Corona Gen-Tie System is in an area that is primarily agricultural land
16 used for grazing and cultivation and is not known to support major or organized
17 recreational activities. However, landowners reserve the right to recreate on their
18 properties, provided such recreation does not unduly interfere with the Corona Wind
19 Project. Near the 2021 Revised Corona Gen-Tie System, the primary recreational activity
20 identified is occasional hunting. This activity is expected to continue throughout the 2021
21 Corona Wind Update Area (which is inclusive of the 2021 Revised Corona Gen-Tie
22 System). Pattern Energy expects to work with landowners for a temporary period during
23 construction to confirm that there are no undue safety risks to either the construction

1 crews or to hunters. Furthermore, Pattern Energy has worked with environmental
2 specialists to create wildlife training materials, which are discussed in the Direct
3 Testimony of Adam Cernea Clark. The previous discussion also applies to the 2021
4 Corona Generation, as well. Further discussion of recreational use is provided in Sections
5 4.12 and 5.12 of the Environmental Report.

6 **Q. WHAT VISUAL IMPACT WILL THE 2021 REVISED CORONA GEN-TIE**
7 **SYSTEM HAVE?**

8 A. Visual impacts from the 2021 Revised Corona Gen-Tie System, as discussed below, will
9 be modest and consistent with the existing environment (e.g., the 2021 Corona Wind
10 Update Area already has existing transmission facilities within the vicinity) and it is not
11 believed that the 2021 Revised Corona Gen-Tie System will materially impair visual
12 resources. Furthermore, because the 2021 Revised Corona Gen-Tie System will be
13 entirely located within the 2021 Corona Wind Update Area, these impacts are consistent
14 with the goals and objectives of both the participating landowners as well as the counties,
15 as evidenced by the Lincoln County Comprehensive Plan and Torrance County
16 Comprehensive Plan promoting the development of wind energy and associated
17 transmission infrastructure.

18 Topography within the 2021 Revised Corona Gen-Tie System is variable, including
19 relatively flat grassland, gentle slopes, small ridgelines, canyons, hills, mesas, canyons
20 and steep slopes. Herbaceous/grassland cover types dominate the landscape, with
21 shrub/scrub and evergreen forest vegetation communities covering smaller areas of the
22 2021 Revised Corona Gen-Tie System.

1 Land use within the 2021 Revised Corona Gen-Tie System is primarily open range
2 livestock grazing. Portions of the southern 2021 Revised Corona Gen-Tie System border
3 private land abutting the Jicarilla Mountains, located in the northeastern extent of the
4 Lincoln National Forest, with several larger ridges and peaks. Elevation within the 2021
5 Corona Wind Update Area ranges from 5,453 to 7,795 feet (1,662 to 2,376 meters [m])
6 above mean sea level (see Exhibit 13 of the Corona Environmental Report).

7 Torrance and Lincoln Counties have low population densities, particularly within the
8 2021 Corona Wind Update Area. The population density for Lincoln County is
9 approximately 4.1 inhabitants per square mile, with most of the population in the county's
10 southern portion in the Greater Ruidoso Area. Torrance County is a large and rather
11 sparsely-populated county located in central New Mexico, southeast of the City of
12 Albuquerque. Torrance County has a population density of 4.6 inhabitants per square
13 mile, with over 95 percent of the population residing in the western half of the county.
14 There are several habitable residences in proximity to 2021 Revised Corona Gen-Tie
15 System and there are other scattered rural residences and small communities nearby.
16 Travelers in proximity to the 2021 Revised Corona Gen-Tie System will include local or
17 regional traffic along U.S. Highway 54 and New Mexico State Route 247.

18 There are no designated federal or state scenic routes or byways in the vicinity of the
19 2021 Revised Corona Gen-Tie System (New Mexico Department of Transportation
20 “NMDOT”, 2015; Federal Highway Administration “FHWA”, 2017) (see Exhibit 15 of
21 the Environmental Report). The nearest federal byway is Billy The Kid Trail which is
22 approximately 26 miles south of the 2021 Revised Corona Gen-Tie System. Additionally,
23 there are no national parks or state parks in the vicinity of the 2021 Revised Corona Gen-

1 Tie System. The Gran Quivira Unit of Salinas Pueblo Missions National Monument is
2 approximately 27 miles west of the 2021 Revised Corona Gen-Tie System. Fort Stanton-
3 Snowy River Cave National Conservation Area, run by the U.S. Bureau of Land
4 Management (BLM), is approximately 26 miles south of the 2021 Revised Corona Gen-
5 Tie System. The closest state parks are the Santa Rosa Lake State Park, Sumner Lake
6 State Park, and Manzano Mountains State Park all located more than 35 miles from the
7 2021 Revised Corona Gen-Tie System. There are no known visually sensitive, cultural
8 resource sites in the vicinity of the 2021 Revised Corona Gen-Tie System. There are no
9 known organized tourism activities in or near the 2021 Revised Corona Gen-Tie System.
10 Further discussion of visual and scenic resources is provided in Sections 4.11 and 5.11 of
11 the Environmental Report. The previous discussion also applies to the 2021 Corona
12 Generation Expansion. The wind turbines will be visible in the local area. The 2021
13 Generation Expansion wind turbines will be similar in style to the ones already operating
14 in this region of the State of New Mexico.

15 **Q. WHAT IMPACT WILL THE CORONA GEN-TIE SYSTEM HAVE ON**
16 **HISTORIC, CULTURAL, AND ARCHAEOLOGICAL RESOURCES?**

17 **A.** Impacts to historical, cultural, and archaeological resources from the 2021 Revised
18 Corona Gen-Tie System are expected to be de minimis, if any. Along the proposed
19 transmission line, a number of historic and archaeological sites have been recorded. Sites
20 range from historical homesteads to archaic archaeological artifact scatters and there are
21 also a number of isolated findings. Within the 2021 Corona Wind Update Area, similar
22 historic and archaeological resources are present. Cultural resource surveys will be
23 completed prior to ground disturbance activities on state lands as well as private land

1 where desktop review does not identify a low likelihood of cultural resources occurrence.
2 The 2021 Revised Corona Gen-Tie System will avoid impacts to historic, cultural, and
3 archeological resources that are discovered during construction on both private and state
4 land to the maximum extent practicable. Pattern Energy's avoidance protocols and siting
5 philosophy is discussed in greater detail in the Direct Testimony of Adam Cernea Clark
6 and the Environmental Report. Pattern Energy will implement an Unanticipated
7 Discoveries Protocol to properly address unexpected discoveries that may be encountered
8 during construction. Further discussion of historic, cultural, and archeological resources
9 is provided in Sections 4.9 and 5.9 of the Environmental Report. The foregoing
10 avoidance strategies apply as well to the 2021 Corona Generation Expansion.

11 **Q. WILL THE 2021 REVISED CORONA GEN-TIE SYSTEM IMPACT**
12 **CEMETERIES OR BURIALS?**

13 A. No cemeteries or burials were identified within the footprint of the 2021 Revised Corona
14 Gen-Tie System. NMCRIS, the Church Index, and the Cemetery Index of Torrance and
15 Lincoln Counties were used to identify religious structures and sites. See Exhibit 11 of
16 the Environmental Report. One cemetery, Corona Cemetery, is located within one mile of
17 the 2021 Revised Corona Gen-Tie System. None of the churches or known cemeteries
18 are located in close proximity to the transmission line. There could be unidentified formal
19 and informal cemeteries associated with the active and abandoned ranches within the
20 footprint of the proposed transmission line. The 2021 Corona Wind Update will avoid
21 these sites and any unanticipated discoveries during construction as discussed in Sections
22 4.10 and 5.10 and identified on Exhibit 11 of the Environmental Report. Three cemeteries
23 are identified within one mile of the 2021 Corona Wind Update Area, Cedarvale

1 Cemetery, Duran Cemetery, and Hindi Family Cemetery (see Exhibit 11 of the
2 Environmental Report,. Additional unidentified formal and informal cemeteries
3 associated with the active and abandoned ranches could be throughout the 2021 Corona
4 Wind Update Area. Further discussion of cemeteries and burials is provided in Sections
5 4.10 and 5.10 of the Environmental Report. The foregoing applies as well to the 2021
6 Corona Wind Update as a whole.

7 **Q. WILL THE 2021 REVISED CORONA GEN-TIE SYSTEM IMPACT ANY**
8 **SCHOOLS?**

9 A. No. The 2021 Revised Corona Gen-Tie System will not physically impact schools. As
10 shown on Exhibit 17 of the Environmental Report, the Corona Elementary/High School
11 is located about 1 mile northwest of the 2021 Revised Corona Gen-Tie System; the
12 Estancia Elementary/Middle/High School is located approximately 22 miles northwest of
13 the 2021 Revised Corona Gen-Tie System boundary. No adverse direct or indirect
14 impacts to schools will occur as a result of the construction, operation, and maintenance
15 of the transmission line facilities. Siting of transmission line facilities will follow industry
16 standard siting guidelines. Although the Corona Elementary/High School is located about
17 3.8 mile west of the 2021 Corona Generation Expansion, the previous land use impacts
18 identified for the 2021 Revised Corona Gen-Tie System also apply for the 2021 Corona
19 Wind Update Area. The planned use of state trust land will contribute meaningful
20 revenue to the state that is earmarked for the benefit of schools. Further, payments-in-
21 lieu-of-taxes associated with industrial revenue bonds to be negotiated with counties and
22 municipalities will have major impacts on the long-term fiscal outlook of schools in the
23 area. Further discussion of schools is provided in Sections 4.12 and 5.12 of the

1 Environmental Report.

2 Q. **WILL THE 2021 REVISED CORONA GEN-TIE SYSTEM IMPACT ANY**
3 **RELIGIOUS SITE?**

4 A. No. The 2021 Revised Corona Gen-Tie System will avoid impacts to known religious
5 buildings and sites in the area. Further discussion of religious sites is provided in
6 Sections 4.10 and 5.10 of the Environmental Report. The foregoing applies as well to the
7 2021 Corona Wind Update generally.

8 Q. **WILL THE 2021 REVISED CORONA GEN-TIE SYSTEM CONFLICT WITH**
9 **MILITARY ACTIVITIES?**

10 A. No. The 2021 Revised Corona Gen-Tie System will not conflict with military activities.
11 Further discussion of military activities is provided in Sections 4.19 and 5.19 of the
12 Environmental Report. Pattern Energy has communicated with local military bases and is
13 working with the United States Department of Defense (“DoD”) and local military bases
14 to address potential impacts on military activities in the area. Pattern Energy will
15 continue to coordinate with military bases.

16 Q. **WILL THE 2021 REVISED CORONA GEN-TIE SYSTEM ADVERSELY**
17 **AFFECT AVIATION**

18 A. No, the 2021 Revised Corona Gen-Tie System will not adversely affect aviation.
19 Military training routes occur in the vicinity of the 2021 Revised Corona Gen-Tie System
20 (see Exhibit 21 of the Environmental Report). However, none of these routes conflict
21 with the 2021 Revised Corona Gen-Tie System. Pattern Energy will work with the United
22 States Federal Aviation Administration (“FAA”) to request Determination of No Hazard

1 (“DNH”) for the new proposed transmissions facilities. Based on the height of
2 transmission line facilities and the location of military and aviation resources, the
3 transmission line facility construction, operation, and maintenance, within the 2021
4 Revised Corona Gen-Tie System will not impact military activities and aviation.

5 As discussed in the previous answer, Pattern Energy is working closely with local
6 military bases and the DoD as well as the FAA. This work has been underway for several
7 years and is complete with respect to the 2021 Corona Wind Update. Prior to
8 construction, Pattern Energy will submit requests for a DNH to the FAA for each
9 proposed wind turbine site, plus extra locations as alternates in case issues arise with any
10 requested turbine location. This Form FAA 7460-1 process (Notice of Proposed
11 Construction or Alteration) is required by the FAA for any structure over 200 feet. Upon
12 review of the Joint Applicant's Form FAA 7460-1, the FAA will consider aviation safety,
13 airport approaches, and military flight activities. Turbines will be lit with FAA-compliant
14 safety lighting per the turbine- specific recommendations resulting from the 7460-1
15 process. Turbines will be lit no more than required by the FAA. Further discussion of
16 aviation is provided in Sections 4.19 and 5.19 of the Environmental Report.

17 **Q. WILL THE 2021 REVISED CORONA GEN-TIE SVSTEM ADVERSELY**
18 **AFFECT SOILS?**

19 **A.** No significant adverse impact to soils is anticipated. Soils within in the 2021 Revised
20 Corona Gen-Tie System are shown on Exhibit 3 of the Environmental Report. The
21 finished footprint of the 2021 Revised Corona Gen-Tie System will cover only small
22 portion of the land in the 2021 Corona Wind Update Area, leaving the remaining areas in
23 their prior uses. In addition, topsoil is planned to be stockpiled and replaced, and erosion

1 control and best management practices will be employed during construction, in
2 compliance with the Storm Water Pollution Prevention Plan that would be implemented
3 for the 2021 Corona Wind Update. The Corona Wind Project is consistent with Lincoln
4 Soil and Water Conservation District Land Use Plan and East Torrance Soil and Water
5 Conservation District Long Range Land Use Plan. The same discussion and conclusion
6 applies to the 2021 Corona Generation Project Area. Further discussion of soils is
7 provided in Sections 4.5 and 5.5 of the Environmental Report.

8 **Q. WILL THE 2021 REVISED CORONA GEN-TIE SYSTEM ADVERSELY**
9 **AFFECT MINERALS OR MINING?**

10 **A.** No. There are few oil and gas wells in the vicinity of the 2021 Revised Corona Gen-Tie
11 System (see Exhibit 3 of the Environmental Report) and these wells will be avoided.
12 There are current oil/natural gas leases within the Lincoln and Torrance Counties, most of
13 these leases are to support exploration drilling projects for hydrocarbons. Torrance
14 County exploration wells have located very deep oil and gas deposits in the Estancia
15 Basin; however, these deposits have yet to be exploited. There are currently no major
16 exploration activities within the 2021 Corona Wind Update Area. Mining has always
17 been important to the economies of these two counties, but due to many of the mineral
18 deposits being limited or the extraction process too expensive, mines within the 2021
19 Revised Corona Gen-Tie System have been shut down. Similarly, there are currently no
20 major exploration activities within the 2021 Corona Wind Update Area.

21 **Q. WILL THE 2021 REVISED CORONA GEN-TIE SYSTEM ADVERSELY**
22 **AFFECT GEOLOGIC OR PALEONTOLOGICAL RESOURCES?**

1 A. No. Geology in the 2021 Revised Corona Gen-Tie System is shown on Exhibit 2 of the
2 Environmental Report. Gems, minerals, and rocks of interest may exist in the 2021
3 Revised Corona Gen-Tie System just as they may exist in many parts of New Mexico.
4 Paleontological finds also have occurred in many parts of New Mexico. While no
5 paleontological resources are known in the 2021 Revised Corona Gen-Tie System, in the
6 event any are identified, current or planned activity in the affected area will stop, and
7 Pattern Energy will make notifications to the appropriate authorities and consultations
8 regarding follow-up activities will occur, in accordance with the Unanticipated
9 Discoveries Protocol. This same discussion also applies to the 2021 Corona Generation
10 Expansion. Further discussion of geology and paleontology resources is provided in
11 Sections 4.4, 4.6, 5.4 and 5.6 of the Environmental Report.

12 Q. **WILL THE 2021 REVISED CORONA GEN-TIE SYSTEM ADVERSELY**
13 **AFFECT ROADS?**

14 A. Roads are shown on Exhibit 15 of the Environmental Report. Prior to construction,
15 Pattern Energy plans to negotiate and execute a road use agreement with Torrance and
16 Lincoln Counties. The road use agreement will identify the county roads that the 2021
17 Revised Corona Gen-Tie System are allowed to use for heavy haul vehicles, mainly
18 during construction. It will identify responsibilities for maintenance and upkeep of these
19 county roads during and after construction, especially for wear and tear or damage caused
20 by the 2021 Corona Wind Update-related traffic. The agreement will establish traffic
21 safety measures to confirm the safety of the driving public. The road use agreement will
22 address dust mitigation measures on county roads resulting from construction traffic. The
23 pre-construction conditions of county roads will be documented, prior to construction,

1 typically by video recording, and the Corona Wind Project will confirm that county roads
2 are generally in the same or better condition upon completion. Financial security will be
3 proposed to confirm Pattern Energy's compliance with the agreement. Prior to the
4 movement of any super-load trucks on other public roads, Pattern Energy will consult
5 with any necessary state and federal transportation authorities and will obtain any
6 required permits. Discussion of road use is provided in Sections 4.20 and 5.20 of the
7 Environmental Report.

8 **Q. WILL THE 2021 REVISED CORONA GEN-TIE SYSTEM ADVERSELY**
9 **AFFECT GEOGRAPHIC RESOURCES?**

10 A. No. There are no national parks or state parks in the vicinity of the 2021 Revised Corona
11 Gen-Tie System. The closest national monument is the Gran Quivira Unit of the Salinas
12 Pueblo Missions National Monument, which is more than 27 miles away, and the closest
13 state parks are the Santa Rosa Lake State Park, Sumner Lake State Park, and Manzano
14 Mountains State Park which are all located more than 35 miles away. Fort Stanton-
15 Snowy River Cave National Conservation Area is approximately 23 miles south and
16 Valley of Fires Recreation Area is approximately 22 miles southwest of the southern end
17 of the 2021 Revised Corona Gen-Tie System. There are no national parks or state parks
18 in the vicinity of the 2021 Corona Wind Update Area as well. The foregoing applies as
19 well to the 2021 Corona Generation Expansion. A discussion of geographic resources is
20 provided in Sections 4.18 and 5.18 of the Environmental Report.

21 **Q. DOES PATTERN ENERGY EXPECT TO ENCOUNTER RADIOACTIVE**
22 **WASTE OR RADIATION HAZARDS?**

1 A. No. Transmission projects and wind generation projects do not generate or contain
2 radioactive waste or radiation hazards, as noted in Sections 4.15 and 5.15 of the
3 Environmental Report.

4 Q. **DOES PATTERN ENERGY EXPECT TO ENCOUNTER ASBESTOS**
5 **OR OTHER MATERIALS THAT REQUIRE SPECIAL HANDLINGS?**

6 A. No. The vast majority of the 2021 Revised Corona Gen-Tie System has never had
7 any construction activity or structures or facilities that could have included asbestos or
8 other materials that require special handling, so all or nearly all of the Corona Wind
9 Project's related construction activity will be sited away from such materials. Prior to
10 construction, Pattern Energy will perform a Phase 1 Environmental Screening
11 Assessment to identify any hazardous materials, substances, or facilities in the 2021
12 Revised Corona Gen-Tie System, and any such items identified will be avoided. Further,
13 in the unlikely event that there are hazardous materials or wastes that are present at the
14 site and associated with the Corona Wind Projects will be properly contained, and a spill
15 response plan will be in place to confirm that, in the event of an accidental spill or
16 leakage, there will be no contamination or transmission downstream. The same
17 discussion applies to the 2021 Corona Wind Update Area. Discussion of hazardous
18 materials is provided in Sections 4.16 and 5.16 of the Environmental Report.

19 Q. **WHAT EFFORTS WILL PATTERN ENERGY MAKE TO PROTECT PUBLIC**
20 **SAFETY AROUND THE CORONA WIND PROJECT?**

21 A. Safety will remain a priority of the Corona Wind Project throughout construction,
22 operation, and eventual decommissioning. Pattern Energy will comply with all

1 manufacturer specifications and relevant OSHA requirements to confirm the safety of
2 residents, employees, contractors, livestock, the public, and other users of the land.
3 Additionally, Torrance and Lincoln County emergency responders and fire districts will
4 be contacted to confirm appropriate plans are in place at the Corona Wind Project to
5 quickly respond to any emergencies. Pattern Energy will communicate with Torrance and
6 Lincoln County fire departments in order to coordinate emergency response plans prior to
7 the start of construction. Pattern Energy will work with the departments to confirm the
8 safety of the firefighters, employees, landowners, neighbors, livestock, and other users of
9 the land. The Corona Wind Project's employees and contractors will all participate in fire
10 prevention/fighting training to confirm their preparedness and participation in fire
11 protection. An annual firefighting practical examination will be completed onsite,
12 including a live drill, to confirm the Corona Wind Project's employees have maintained
13 their training. This training will be offered to the local fire departments too. The Corona
14 Wind Project will have emergency response plans in place to respond to various natural
15 disasters, even though the 2021 Corona Wind Update Area generally are not considered
16 to be high-risk sites. Within the 2021 Corona Wind Update Area, electrical substations
17 and transformers will be located inside locked fences or enclosures, and they will be
18 clearly marked to show that energized electrical equipment is located inside. Modern
19 wind turbines are inherently unclimbable by the general public, since there are no exterior
20 ladders or lattice work, and interior ladders are secured behind locked doors located at the
21 bases of the turbine towers. Discussion of public safety is provided in Sections 4.17 and
22 5.17 of the Environmental Report.

23 **Q. HAS PATTERN ENERGY IDENTIFIED PROTECTION MEASURES IT WILL**

1 **IMPLEMENT TO AVOID AND MANAGE IMPACTS TO RESOURCES YOU**
2 **REVIEWED ABOVE?**

3 A. Yes. The measures Pattern Energy will implement are identified in Section 5.0 of the
4 Environmental Report. Additionally, Pattern Energy has developed additional best
5 management practices in collaboration with the New Mexico State Lands Office and
6 Claunch-Pinto Soil and Water Conservation District that are discussed in the prepared
7 direct testimony of Adam Cernea Clark.

8 Q. **WILL THE 2021 CORONA WIND UPDATE RESULT IN ENVIRONMENTAL**
9 **BENEFITS?**

10 A. Yes. To the extent that the electric generation by the wind component of the Corona
11 Wind Project displaces generation from fossil-fuel fired sources such as coal and gas
12 generation, it will result in reduced emission of greenhouse gases and air pollutants,
13 which will benefit the State of New Mexico and the region. The renewable energy
14 generation will conserve scarce water resources and will not discharge pollutants. The
15 Corona Wind Project will use only a small portion of the land area, leaving the remaining
16 land available for pre- existing uses such as agriculture, rangeland and wildlife habitat.
17 Micro-siting of the transmission line facilities and wind turbines will avoid sensitive
18 resources. Furthermore, the energy of the 2021 Revised Corona Gen-Tie System provides
19 an electrical transmission link to the areas high-wind speed resources and the electric
20 grid, which benefit should continue long into the future irrespective of the life of the
21 Corona Wind Project.

22 IV. **LAND USE, LAND OWNERSHIPS AND COMPLIANCE WITH LAND USE**

1 **STATUTES AND ADMINISTRATIVE REGULATIONS**

2 **Q. PLEASE DESCRIBE THE EXISTING LAND OWNERSHIP AND LAND USES**
3 **ON THE 2021 CORONA WIND UPDATE AREA.**

4 A. The 2021 Corona Wind Update encompasses approximately 88,265 acres on primarily
5 private land, as well as some state trust land. About 85% to 90% of Corona Wind Update
6 Area is expected to consist of private land, and about 10% to 15% of which may consist
7 of state trust land. No federal land is planned to be used. Pattern Energy has applied to
8 the SLO for a real estate lease for about 7,580 acres of state trust land. It is possible that
9 additional private landowners and state trust land parcels will be incorporated into the
10 Corona Wind Update Area. The type of land ownership is shown on Exhibit 19 of the
11 Corona Environmental Report. The current land use of the Corona Gen-Tie Study
12 Corridor is predominantly agricultural, with a mix of grazing, cultivation, dairies, and
13 Conservation Reserve Program uses.

14 **Q. WILL THESE USES CONTINUE FOLLOWING CONSTRUCTION OF THE**
15 **WIND FARMS?**

16 A. Yes. When construction is complete, the Corona Wind Project’s facilities are expected to
17 utilize a small portion of the approximately 88,265-acre 2021 Corona Wind Update
18 Area, thus leaving the remaining unutilized land available for its existing land use. As
19 discussed above, the Corona Wind Project will not interfere with land use in the vicinity
20 of the Corona Wind Projects. In some ways, the Corona Wind Project will enhance the
21 ability of landowners to utilize their land for agriculture because the Corona Wind Project
22 will make annual payments to landowners that will be a steady new income stream,

1 independent of commodity prices, drought, and other factors that affect the economics of
2 agriculture. In some cases, the extra income from the Corona Wind Project may enable
3 landowners to stay on their land and reinvest in and continue their current agricultural
4 practices.

5 **Q. HAS PATTERN ENERGY SECURED LAND RIGHTS FOR THE 2021 CORONA**
6 **WIND UPDATE FROM THE PRIVATE LANDOWNERS?**

7 A. Yes. I am informed that Pattern Energy has executed lease option agreements for the
8 private acreage. Lease option agreements provide for a right to both develop, construct,
9 and operate wind facilities and transmission infrastructure. Additional landowners
10 adjacent or nearby the 2021 Corona Wind Update Area may yet contact Pattern Energy
11 with an interest in signing a lease agreement, and Pattern Energy intends to continue to
12 entertain such inquiries. The location control approval, if granted by the Commission, is
13 only intended to apply to land within the 2021 Revised Corona Gen-Tie System that is
14 currently or ultimately signed for the Corona Wind Projects' use.

15 **Q. DOES THE 2021 CORONA WIND UPDATE REQUIRE USE OF STATE LANDS?**

16 A. It is my understanding that state trust land is not necessarily required for the 2021
17 Corona Wind Update viability, but its inclusion will enhance flexibility of turbine and
18 facilities siting. Because the alignment of the 2021 Revised Corona Gen-Tie System is
19 dependent on the locations of wind turbines, the amount and location of state trust lands
20 to be leased by the 2021 Corona Wind Update indirectly affects the alignment and
21 location of the Gen-Tie System. At this time it is estimated that the Joint Applicants will
22 locate facilities on approximately 7,580 acres of state trust lands.

1 Q. **WHAT LAND USE STATUTES AND ADMINISTRATIVE REGULATIONS**
2 **APPLY TO THE 2021 CORONA WIND UPDATE PROJECT AREA,**
3 **SPECIFICALLY TO THE 2021 REVISED CORONA GEN-TIE SYSTEM?**

4 A. Lincoln County does not have any zoning regulations that apply to transmission line
5 facilities. As part of Lincoln County’s Economic and Development Vision and Goals, the
6 vast open acres of farm and ranchland are envisioned to potentially be used to produce
7 solar and wind energy to supplement farmers’ incomes and promote business
8 development in areas outside Ruidoso to better distribute employment around the
9 southcentral part of the Lincoln County. The 2021 Revised Corona Gen-Tie System is
10 consistent with Lincoln County's recommended Land Use Policy, which emphasizes
11 private property rights and development as necessary for economic vitality. Lincoln
12 County does have a wind energy ordinance, which I discuss below, but transmission lines
13 equal to or greater than 230-kV are not covered by that ordinance.

14 As part of Torrance County’s Goals and Objectives in the Torrance County
15 Comprehensive Land Use Plan, the potential for wind and solar generated power is
16 encouraged to be investigated in order to improve and expand Torrance County -wide
17 infrastructure to enhance the quality of life and support economic development.

18 The Torrance County Zoning Ordinance encourages the development of businesses that
19 harness wind energy. The Special Use District (“SUD”) permitting process for wind
20 energy facilities are to foster the development of the County's wind power resources
21 while preserving traditional land uses. As indicated in the Torrance County Zoning
22 Ordinance, wind energy facilities within a special use district are subject to a Wind
23 Energy Facility Permit if the County Commission approves a special use district for a

1 Wind Energy Facility. The Wind Energy Facility Permit specifies additional conditions
2 that apply to the Wind Energy Facility. Because the 2021 Corona Wind Update may use
3 up to approximately 7,580 acres of state trust land, certain of the Joint Applicants have
4 submitted applications for leases to the SLO and will submit additional applications in
5 the near future. The SLO's business leasing regulations, Rule 19.2.9 NMAC, apply to
6 leasing of state trust lands.

7 **Q. IN SUMMARY, WILL THE 2021 REVISED CORONA GEN-TIE SYSTEM**
8 **COMPLY WITH EXISTING STATE, COUNTY, OR MUNICIPAL LAND USE**
9 **STATUTORY OR ADMINISTRATIVE REGULATION?**

10 A. Yes. As demonstrated in my testimony and exhibits, both the 2021 Revised Corona Gen-
11 Tie System and the 2021 Corona Generation Expansion will comply with applicable state
12 and county land use statutes and administrative regulations. There are no municipal land
13 use regulations that apply to the Corona Wind Project. Lincoln County enacted
14 Ordinance No. 2017-04, an ordinance providing for the placement, construction, use and
15 modification of Wind Energy Conversion Systems (“WECS”) consistent with Lincoln
16 County’s land use policies; minimizing potential negative impacts of wind energy
17 conversion systems. This Ordinance governs WECS or parts thereof located within the
18 boundaries of Lincoln County, including privately owned land or land owned by the State
19 of New Mexico or the United States. Torrance County encourages the development of
20 businesses that harness wind energy and has SUD permitting process to foster the
21 development of the Torrance County’s wind power resources while preserving traditional
22 land uses. The SLO will apply its leasing regulations to issue the real estate lease with
23 which the Corona Wind Projects will comply if a SLO lease is granted and utilized.

1 Q. **DOES THIS CONCLUDE YOUR TESTIMONY AT THIS TIME?**

2 A. Yes, it does.

BEFORE THE NEW MEXICO PUBLIC REGULATION COMMISSION

IN THE MATTER OF THE JOINT APPLICATION)
FOR THE LOCATION APPROVAL OF THE)
EXPANDED CORONA WIND PROJECTS AND THE)
REVISED CORONA GEN-TIE SYSTEM AND FOR)
RIGHT-OF-WAY WIDTH APPROVAL PURSUANT)
TO THE PUBLIC UTILITY ACT, NMSA 1978, §62-9-)
3)

Case No. 21-00__-UT

ANCHO WIND LLC, COWBOY MESA LLC, ,)
GALLINAS MOUNTAIN WIND LLC, MESA)
CANYONS WIND, LLC, PATTERN SC HOLDINGS)
LLC, VIENTO LOCO LLC,)
)
)

JOINT APPLICANTS.

AFFIDAVIT OF NATHAN OLDAY

STATE OF TEXAS)
) ss.
COUNTY OF TRAVIS)

I have read the foregoing Direct Testimony and under penalty of perjury under the laws of the State of New Mexico the statement is true and correct based on my own knowledge and belief.

Nathan Olday
Nathan Olday

SWORN on this 11th day of NOVEMBER 2021.

07.22.2024
My Commission Expires



[Signature]
Notary Public