EXHIBIT A
CERTIFICATE HOLDER INFORMATION

OAR 345-021-0010(1)(a)

TABLE OF CONTENTS

A.1 CERTIFICATE HOLDER AND CONTACT PERSONS

(A) Information about the applicant and participating persons, including:

OAR 345-021-0010(1)(A). *The name and address of the applicant including all co-owners of the proposed facility, the name, mailing address, email address and telephone number of the contact person for the application, and if there is a contact person other than the applicant, the name, title, mailing address, email address and telephone number of that person;*

Response: Montague Wind Power Facility, LLC (Montague) is the current certificate holder for the Montague Wind Power Facility (Facility). Montague first applied for a Site Certificate in 2010. The Site Certificate was issued on September 14, 2010. There has been no substantive change to Montague's contact information since the *Final Order on Request for Contested Case and Amendment #3 of the Site Certificate for the Montague Wind Power Facility* was issued on July 12, 2017. However, the information is repeated here for completeness and ease of reference.

Contact information is listed below.

Name and Mailing Address of Certificate Holder:

Montague Wind Power Facility, LLC
1125 NW Couch Street, Suite 700
Portland, OR 97209

Contact Persons with Mailing Address, Email Address, and Telephone Number:

Brian Walsh
Senior Developer
Avangrid Renewables, LLC
1125 NW Couch Street, Suite 700
Portland, OR 97209
brian.walsh@avangrid.com
(503) 796-6928

Matt Hutchinson
Manager, Permitting and Environmental
Avangrid Renewables, LLC
1125 NW Couch St., Suite 700
Portland, OR, 97209
matthew.hutchinson@avangrid.com
(503) 478-6317

Contact Persons Other than Montague:

Linnea Eng
CH2M HILL Engineers, Inc.
2020 SW Fourth Avenue, Suite 300
Portland, OR 97201
Linnea.Eng@CH2M.com
(425) 895-0879

Elaine R. Albrich
Davis Wright Tremaine LLP
1300 SW Fifth Avenue
Suite 2400
Portland, OR 97201-5610
ElaineAlbrich@dwt.com
(503) 778-5423

A.2 PARTICIPATING ENTITIES

OAR 345-021-0010(1)(a)(B). *The contact name, mailing address, email address and telephone number of all participating persons, other than individuals, including but not limited to any parent corporation of the applicant, persons upon whom the applicant will rely for third-party permits or approvals related to the facility, and, if known, other persons upon whom the applicant will rely in meeting any facility standard adopted by the Council.*

Response:

Parent Company:

Avangrid Renewables, LLC
1125 NW Couch St., Suite 700
Portland, Oregon 97209
(503) 796-7000

Contact Name, Mailing Address, Email Address, and Telephone Number:

Brian Walsh
Senior Developer
Avangrid Renewables, LLC
1125 NW Couch Street, Suite 700
Portland, OR 97209
brian.walsh@avangrid.com
(503) 796-6928

A.3 CORPORATION STATUS

OAR 345-021-0010(1)(a)(C). *If the applicant is a corporation, it shall give*:

(i) *The full name, official designation, mailing address, email address and telephone number of the officer responsible for submitting the application;*

(ii) *The date and place of its incorporation;*

(iii) *A copy of its articles of incorporation and its authorization for submitting the application; and*

(iv) *In the case of a corporation not incorporated in Oregon, the name and address of the resident attorney-in-fact in this state and proof of registration to do business in Oregon.*

Response: Montague is not a corporation; Montague is a Limited Liability Company (LLC).

A.4 OWNERSHIP

OAR 345-021-0010(1)(a)(D). *If the applicant is a wholly owned subsidiary of a company, corporation or other business entity, in addition to the information required by paragraph (C), it shall give the full name and business address of each of the applicant's full or partial owners;*

Response: Montague is a wholly owned subsidiary of Avangrid Renewables, LLC, formerly Iberdrola Renewables, LLC. Montague will be the 100 percent owner of the Facility and will have access to Avangrid Renewables' resources and expertise in the development, construction management, and operation of the Facility. Avangrid Renewables is a subsidiary of AVANGRID (NYSE: AGR) and part of the IBERDROLA Group. Avangrid Renewables, LLC, recently changed its legal name from Iberdrola Renewables, LLC, and is in the process of implementing a rebranding effort. The parent company names and business addresses are as follows:

Avangrid Renewables, LLC
1125 NW Couch St., Suite 700
Portland, Oregon 97209
(503) 796-7000

AVANGRID
180 Marsh Hill Road
ORANGE, CT 06477
www.avangrid.com

A.5 ADDITIONAL CERTIFICATE HOLDER INFORMATION

OAR 345-021-0010(1)(a)(E). *If the applicant is an association of citizens, a joint venture or a partnership, it shall give:*

(i) The full name, official designation, mailing address, email address and telephone number of the person responsible for submitting the application;

(ii) The name, business address and telephone number of each person participating in the association, joint venture or partnership and the percentage interest held by each;

(iii) Proof of registration to do business in Oregon;

(iv) A copy of its articles of association, joint venture agreement or partnership agreement and a list of its members and their cities of residence; and

(v) If there are no articles of association, joint venture agreement or partnership agreement, the applicant shall state that fact over the signature of each member;

Response: Montague is not an association of citizens, joint ventures, or partnerships.

OAR 345-021-0010(1)(a)(F). *If the applicant is a public or governmental entity, it shall give*:

(i) The full name, official designation, mailing address, email address and telephone number of the person responsible for submitting the application; and

(ii) Written authorization from the entity's governing body to submit the application;

Response: Montague is not a public or governmental entity.

OAR 345-021-0010(1)(a)(G). *If the applicant is an individual, the individual shall give his or her mailing address, email address and telephone number*.

Response: Montague is not an individual.

OAR 345-021-0010(1)(a)(H). *If the applicant is a limited liability company, it shall give*:

(i) The full name, official designation, mailing address, email address and telephone number of the officer responsible for submitting the application;

Response: The officer responsible for submitting the amendment request is as follows:

Jesse Gronner
Authorized Representative
Avangrid Renewables, LLC
1125 NW Couch Street, Suite 700
Portland, OR 97209

(ii) The date and place of its formation;

Response: Montague was organized and acknowledged by the Oregon Secretary of State on April 14, 2010, in Salem, Oregon.

(iii) A copy of its articles of organization and its authorization for submitting the application; and

Response: The articles of organization and authorization for submitting the amendment request are provided in Attachment A-1.

(iv) In the case of a limited liability company not registered in Oregon, the name and address of the resident attorney-in-fact in this state and proof of registration to do business in Oregon.

Response: Montague is registered in Oregon; therefore, information for the resident attorney-in-fact is not required.

Attachment A-1
Articles of Organization and Authorization

Articles of Organization

Secretary of State
Corporation Division
255 Capitol Street NE, Suite 151
Salem, OR 97310-1327

Phone:(503)986-2200
Fax:(503)378-4381
www.filinginoregon.com

Registry Number: 680326-98
Type: DOMESTIC LIMITED LIABILITY COMPANY

FILED
Apr 14, 2010
OREGON
SECRETARY OF STATE

1) ENTITY NAME

MONTAGUE WIND POWER FACILITY, LLC

2) DESCRIPTION OF BUSINESS

551112 - Offices of Holding Companies, Other

3) MAILING ADDRESS

ATTN PARALEGAL
1125 NW COUCH ST STE 700
PORTLAND, OR 97209
USA

4) NAME & ADDRESS OF REGISTERED AGENT

003292-27 - C T CORPORATION SYSTEM
388 STATE ST STE 420
SALEM, OR 97301
USA

5) ORGANIZERS

448526-89 - IBERDROLA RENEWABLES, INC.
1125 NW COUCH ST STE 700
PORTLAND OR 97209
USA
Authorized Signer: W BENJAMIN LACKEY

6) MEMBERS

448526-89 - IBERDROLA RENEWABLES, INC.
1125 NW COUCH ST STE 700
PORTLAND OR 97209
USA

7) DURATION

perpetual

8) MANAGEMENT

This Limited Liability Company is member managed.

9) PROFESSIONAL SERVICES

None

By my signature, I declare as an authorized authority, that this filing has been examined by me and is, to the best of my knowledge and belief, true, correct, and complete. Making false statements in this document is against the law and may be penalized by fines, imprisonment, or both.

By typing my name in the electronic signature field, I am agreeing to conduct business electronically with the State of Oregon. I understand that transactions and/or signatures in records may not be denied legal effect solely because they are conducted, executed, or prepared in electronic form and that if a law requires a record or signature to be in writing, an electronic record or signature satisfies that requirement.

10) ELECTRONIC SIGNATURES

W BENJAMIN LACKEY

Articles of Organization

Secretary of State
Corporation Division
255 Capitol Street NE, Suite 151
Salem, OR 97310-1327

Phone:(503)986-2200
Fax:(503)378-4381
www.filinginoregon.com

Registry Number: 680326-98
Type: DOMESTIC LIMITED LIABILITY COMPANY

FILED
Apr 14, 2010
OREGON
SECRETARY OF STATE

11) CONTACT NAME
EVANGELINE KESSLER

DAYTIME PHONE NUMBER
503-478-6305

AVANGRID
RENEWABLES

February 22, 2016

Effective February 18, 2016, Iberdrola Renewables, LLC has changed its name to Avangrid Renewables, LLC. This change more closely aligns Avangrid Renewables with its newly-formed and publicly-traded US holding company, AVANGRID, Inc. (AGR), a diversified energy and utility company with $30 billion in assets and operations in 25 states, and is the first phase of a broader re-branding initiative by the company. Day-to-day operations and business contacts will not change. You will continue to do business with the same dependable team as always.

Avangrid Renewables operates 6.3 gigawatts of generation capacity, including 5.6 gigawatts of wind power at 53 windfarms across 18 states, making it the second largest wind energy producer in the U.S. Avangrid Renewables is the U.S. renewable energy division of parent company Iberdrola, S.A., an energy pioneer with the largest renewable asset base of any company in the world – more than 14,000 megawatts of energy spread across a dozen countries.

AVANGRID, Inc. (formerly known as Iberdrola USA, Inc.) will continue to provide credit support on behalf of Avangrid Renewables, LLC. AVANGRID, Inc. is rated Baa1 with a stable outlook by Moody's Investors Service and BBB with a positive outlook by Standard & Poor's.

Also effective on February 18, 2016, Avangrid Renewables' affiliate Iberdrola Energy Services, LLC has changed its name to ENSTOR Energy Services, LLC. ENSTOR Energy Services is also a subsidiary of AVANGRID, Inc.

Please find attached Avangrid Renewables' W-9 and name change documentation. Also, please note that our contact information, including email addresses, has not changed.

We at Avangrid Renewables look forward to continuing our business relationship with you. Please don't hesitate to contact Jim Carroll (jim.carroll@iberdrolaren.com / 503-796-6918) or Ginger Price (Ginger.Price@iberdrolaren.com / 503-478-6355) with any questions.

Sincerely,

Frank Burkhartsmeyer
CEO

Avangrid Renewables, LLC
1125 NW Couch St., Ste. 700, Portland, OR 97209

Secretary of State
Corporation Division
255 Capitol Street NE, Suite 151
Salem, OR 97310-1327

Phone:(503)986-2200
www.filinginoregon.com

Registry Number: 448526-89
Type: DOMESTIC LIMITED LIABILITY COMPANY

Next Renewal Date: 03/15/2016

AVANGRID RENEWABLES, LLC
1125 NW COUCH ST STE 700
PORTLAND OR 97209

Acknowledgment Letter

The document you submitted was recorded as shown below. Please review and verify the information listed for accuracy.

Document
ARTICLES OF AMENDMENT

Filed On
02/18/2016

Jurisdiction
OREGON

Name
AVANGRID RENEWABLES, LLC

Principal Place of Business
1125 NW COUCH ST STE 700
PORTLAND OR 97209

Registered Agent
CORPORATION SERVICE COMPANY
1127 BROADWAY STREET NE STE 310
SALEM OR 97301

Mailing Address
1125 NW COUCH ST STE 700
PORTLAND OR 97209

Manager
IBERDROLA RENEWABLES HOLDINGS, INC.
1125 NW COUCH ST
PORTLAND OR 97209

SHADEA
ACK
02/18/2016

Articles of Amendment/Dissolution - Limited Liability Company

Secretary of State - Corporation Division - 255 Capitol St. NE, Suite 151 - Salem, OR 97310-1327 - http://www.FilingInOregon.com - Phone: (503) 986-2200

(●) ARTICLES OF AMENDMENT (Complete only 1, 2, 3, 6)

( ) ARTICLES OF DISSOLUTION (Complete 4, 5, 6)

FILED

FEB 18 2016

OREGON
SECRETARY OF STATE

Print Form

Reset Form

REGISTRY NUMBER: 448526-89

In accordance with Oregon Revised Statute 192.410-192.490, the information on this application is public record. We must release this information to all parties upon request and it will be posted on our website.

For office use only

Please Type or Print Legibly in **Black** Ink. Attach Additional Sheet if Necessary.

ARTICLES OF AMENDMENT ONLY

1. **ENTITY NAME:** Iberdrola Renewables, LLC

2. **THE FOLLOWING AMENDMENT(S) TO THE ARTICLES OF ORGANIZATION IS MADE HEREBY:** (State the article number(s) and set forth the article(s) as it is amended to read.)

Article 1

The name of the Limited Liability Company (the "Company") is Avangrid Renewables, LLC

3. **PLEASE CHECK THE APPROPRIATE STATEMENT:**

( ) This amendment was adopted by the manager(s) without member action. Member action was not required.

Date of adoption of each amendment: _____

(●) This amendment(s) was approved by the members. 100 percent of the members approved the amendment(s).

Date of adoption of each amendment: February 12, 2016

ARTICLES OF DISSOLUTION ONLY

4. **NAME OF LIMITED LIABILITY COMPANY:** _____

5. **DATE OF DISSOLUTION:** _____

6. **EXECUTION:** By my signature, I declare as an authorized signer, that this filing has been examined by me and is, to the best of my knowledge and belief, true, correct, and complete. Making false statements in this document is against the law and may be penalized by fines, imprisonment or both.

Signature:	Printed Name:	Title:
	W. Benjamin Lackey	Secretary

CONTACT NAME: (To resolve questions with this filing)

Maria Rojas

PHONE NUMBER: (Include area code)

484-654-2138

FEES

Required Processing Fee $100

Processing Fees are nonrefundable. Please make check payable to "Corporation Division".

Free copies are available at FilingInOregon.com using the Business Name Search program.

Secretary of State
Corporation Division
255 Capitol Street NE, Suite 151
Salem, OR 97310-1327

Phone:(503)986-2200
www.filinginoregon.com

Registry Number: 448526-89
Type: DOMESTIC LIMITED LIABILITY COMPANY

Next Renewal Date: 03/15/2012

IBERDROLA RENEWABLES, LLC
ATTN PARALEGAL
1125 NW COUCH STE 700
PORTLAND OR 97209

Acknowledgment Letter

The document you submitted was recorded as shown below. Please review and verify the information listed for accuracy.

Document
ARTICLES OF CONVERSION

Filed On
02/17/2012

Jurisdiction
OREGON

Name
IBERDROLA RENEWABLES, LLC

Principal Place of Business
1125 NW COUCH STE STE 700
PORTLAND OR 97209

Registered Agent
C T CORPORATION SYSTEM
388 STATE ST STE 420
SALEM OR 97301

Mailing Address
ATTN PARALEGAL
1125 NW COUCH STE 700
PORTLAND OR 97209

Manager
IBERDROLA RENEWABLES HOLDINGS, INC.
1125 NW COUCH STE 700
PORTLAND OR 97209

THEJOH
ACK
02/17/2012

Articles of Conversion - Business Entities

Secretary of State - Corporation Division - 255 Capitol St. NE, Suite 151 - Salem, OR 97310-1327 - http://www.FilingInOregon.com - Phone (503) 986-2200

FILED

FEB 17 2012

OREGON
SECRETARY OF STATE

REGISTRY NUMBER: 448526-89

In accordance with Oregon Revised Statute 192.410-192.490, the information on this application is public record.
We must release this information to all parties upon request and it will be posted on our website

For office use only

Please Type or Print Legibly in Black Ink.

1) NAME OF BUSINESS ENTITY PRIOR TO CONVERSION:
IBERDROLA RENEWABLES, INC.

2) TYPE OF BUSINESS ENTITY PRIOR TO CONVERSION:
OREGON CORPORATION

3) NAME OF BUSINESS ENTITY AFTER CONVERSION:
IBERDROLA RENEWABLES, LLC

4) TYPE OF BUSINESS ENTITY AFTER CONVERSION:
OREGON LIMITED LIABILITY COMPANY

5) ☑ A COPY OF THE PLAN OF CONVERSION IS ATTACHED.

6) PROVIDE ADDITIONAL INFORMATION REQUIRED FOR NEW ENTITY TYPE

The effective time of the conversion shall be April 2, 2012.

The name and address of the Manager is Iberdrola Renewables Holdings, Inc., 1125 NW Couch Street, Suite 700, Portland, Oregon 97209.

7) EXECUTION: (Must be signed by an officer or director for a corporation, a member or manager for a limited liability company, a general partner for a limited partnership, or a partner for a limited liability partnership.)
By my signature, I declare as an authorized authority, that this filing has been examined by me and is, to the best of my knowledge and belief, true, correct, and complete. Making false statements in this document is against the law and may be penalized by fines, imprisonment or both.

Signature: W. Benjamin Lackey

Printed Name: W. Benjamin Lackey

Title: Secretary

CONTACT NAME: (To resolve questions with this filing.)
Sherry Stratton

PHONE NUMBER: (Include area code.)
503-294-9254

FEES

Domestic Required Processing Fee $100
Foreign Required Processing Fee $275

Confirmation Copy (Optional) $5

Processing Fees are nonrefundable. Please make check payable to "Corporation Division."

PLAN OF CONVERSION

Iberdrola Renewables, Inc., an Oregon Corporation
into
Iberdrola Renewables, LLC, an Oregon Limited Liability Company

1. The name and type of the business entity prior to conversion is Iberdrola Renewables, Inc., an Oregon corporation (the "Corporation").

2. The name and type of the business entity after conversion is Iberdrola Renewables, LLC, an Oregon limited liability company (the "LLC").

3. The Corporation shall be converted into the LLC (the "Conversion") effective as of April 2, 2012.

4. Effective upon the Conversion, the LLC shall be manager managed. The sole shareholder of the Corporation will be the sole member of the LLC and effective upon the Conversion, 100% of the Corporation's common stock owned by the Corporation's sole shareholder shall convert into a 100% membership interest in the LLC. The name and address of the sole member of the LLC are Iberdrola Renewables Holdings, Inc., 1125 NW Couch Street, Suite 700, Portland, OR 97209.

5. Effective upon the Conversion, the LLC will be governed by the Articles of Organization filed with the Secretary of State of Oregon.

ARTICLES OF ORGANIZATION
OF
IBERDROLA RENEWABLES, LLC
an Oregon Limited Liability Company

ARTICLE I

The name of the limited liability company (the "Company") is Iberdrola Renewables, LLC.

ARTICLE II

The Company shall have perpetual existence.

ARTICLE III

The name of the initial registered agent is CT Corporation System and the address of the initial registered office is 388 State Street, Suite 420, Salem, Oregon 97301.

ARTICLE IV

The address where the Division may mail notices is Attention: Paralegal, 1125 NW Couch Street, Suite 700, Portland, OR 97209.

ARTICLE V

The Company shall be managed by its managers. The initial manager shall be Iberdrola Renewables Holdings, Inc.

ARTICLE VI

The name and address of the organizer of the Company are Iberdrola Renewables, Inc., Attention: Benjamin W. Lackey, 1125 NW Couch Street, Suite 700, Portland, OR 97209.

ARTICLE VII

To the fullest extent the Oregon Limited Liability Company Act, as it exists on the date hereof or may hereafter be amended, permits the limitation or elimination of liability of members, a member shall not be liable to the Company or the other members for monetary damages for conduct as a member. Any amendment to or repeal of this Article VII shall not adversely affect any right or protection of a member for or with respect to any acts or omissions of such member occurring prior to such amendment or repeal.

DATED this 17th day of February, 2012.

IBERDROLA RENEWABLES, INC.

By: W. Benjamin Lackey
Its: Secretary

CERTIFICATE

State of Oregon

OFFICE OF THE SECRETARY OF STATE
Corporation Division

I, BILL BRADBURY, Secretary of State of Oregon, and Custodian of the Seal of said State, do hereby certify:

That the attached Document File for:

IBERDROLA RENEWABLES, INC.

is a true copy of the original documents that have been filed with this office.

In Testimony Whereof, I have hereunto set my hand and affixed hereto the Seal of the State of Oregon.

BILL BRADBURY, Secretary of State

By Marilyn R. Smith

Marilyn R. Smith
April 25, 2008

Phone: (503) 986-2200
Fax: (503) 378-4381

Articles of Amendment—Business/Professional/Nonprofit

Secretary of State
Corporation Division
255 Capitol St. NE, Suite 151
Salem, OR 97310-1327
FilingInOregon.com

Check the appropriate box below:
- [X] BUSINESS/PROFESSIONAL CORPORATION (Complete only 1, 2, 3, 4, 6, 7)
- [ ] NONPROFIT CORPORATION (Complete only 1, 2, 3, 5, 6, 7)

FILED
APR 15 2008
OREGON
SECRETARY OF STATE

REGISTRY NUMBER: 448526-89

In accordance with Oregon Revised Statute 192.410-192.490, the information on this application is public record. We must release this information to all parties upon request and it will be posted on our website.

For office use only

Please Type or Print Legibly in Black Ink.

1) ENTITY NAME: PPM Energy, Inc.

2) STATE THE ARTICLE NUMBER(S) AND SET FORTH THE ARTICLE(S) AS IT IS AMENDED TO READ. (Attach a separate sheet if necessary.)

ARTICLE I
The name of the Corporation is IBERDROLA RENEWABLES, Inc.

3) THE AMENDMENT WAS ADOPTED ON: March 10th, 2008

(If more than one amendment was adopted, identify the date of adoption of each amendment.)

BUSINESS/PROFESSIONAL CORPORATION ONLY

4) CHECK THE APPROPRIATE STATEMENT

- [x] Shareholder action was required to adopt the amendment(s). The vote was as follows:

Class or series of shares	Number of shares outstanding	Number of votes entitled to be cast	Number of votes cast FOR	Number of votes cast AGAINST
Common	100	100	100	0

- [ ] Shareholder action was not required to adopt the amendment(s). The amendment(s) was adopted by the board of directors without shareholder action.
- [ ] The corporation has not issued any shares of stock. Shareholder action was not required to adopt the amendment(s). The amendment(s) was adopted by the incorporators or by the board of directors.

NONPROFIT CORPORATION ONLY

5) CHECK THE APPROPRIATE STATEMENT

- [ ] Membership approval was not required. The amendment(s) was approved by a sufficient vote of the board of directors or incorporators.
- [ ] Membership approval was required. The membership vote was as follows:

Class(es) entitled to vote	Number of members entitled to vote	Number of votes entitled to be cast	Number of votes cast FOR	Number of votes cast AGAINST

6) EXECUTION

Signature	Printed Name	Title
	W. Benjamin Lakey	Assistant Secretary

7) CONTACT NAME (To receive questions with this filing.)

Etta Janoushek

DAYTIME PHONE NUMBER (Include area code.)

503.796.2947

FEES

Required Processing Fee $60
No Fee for Nonprofit Type Change Only
Certification Copy (Optional) $5
Processing Fees are nonrefundable.
Please make check payable to "Corporation Division."
NOTE:
Fees may be paid with VISA or MasterCard. The card number and expiration date should be submitted on a separate sheet for your protection.

113 (Rev. 8/07)

ORBS - 08/31/2007 CT System Online

01/06/03 3:35PM 000#9265 05(
BUSINESS REG $20.0(

4485268-89

ARTICLES OF AMENDMENT
to the
ARTICLES OF INCORPORATION
of
PACIFICORP POWER MARKETING, INC.

FILED
JAN 0 6 2003
OREGON
SECRETARY OF STATE

In accordance with ORS §60.437 and §60.447, PacifiCorp Power Marketing, Inc., a corporation organized and existing under the laws of the State of Oregon, does hereby certify as follows:

1. The Board of Directors of the Company, at a meeting held November 21, 2002, proposed and declared advisable the following amendment to the Company's Articles of Incorporation:

   RESOLVED, that Article I of the Company's Articles of Incorporation shall be amended to read, in its entirety, as follows:

   "ARTICLE I
   Corporate Name

   The name of the corporation is **PPM Energy, Inc.**"

2. The foregoing amendment was duly approved on November 21, 2002 by written consent of the Company's sole shareholder in accordance with ORS § 60.437. The sole shareholder of the Company holds all 100 shares of the Company's outstanding capital stock.

3. These Articles of Amendment shall be effective at 12:01 a.m. on January 15, 2003.

PACIFICORP POWER MARKETING, INC.

By: _____
I. Merrick Kerr
Chief Financial Officer

ATTEST:

By: _____
Jeffery B. Erb, Assistant Corporate Secretary

9F1-6

S:\LegalDept\Minutes\PPM\PPM ARTICLES OF AMEND.doc

748526-84

FILED
MAR 15 1995
SECRETARY OF STATE

ARTICLES OF INCORPORATION
OF
PACIFICORP POWER MARKETING, INC.

The undersigned, being over the age of 18 years, hereby adopts these Articles of Incorporation in accordance with the provisions of the Oregon Business Corporation Act (the "Act").

ARTICLE I
Corporate Name

The name of the corporation is PacifiCorp Power Marketing, Inc.

ARTICLE II
Corporate Purpose

The purposes of this corporation are to engage in any lawful activities for which corporations may be organized under the Act as from time to time constituted.

ARTICLE III
Registered Agent

The initial registered agent of this corporation for service of process is Sally A. Nofziger, whose street address is 700 NE Multnomah, Suite 1600, Portland, Oregon 97232-1000, which address is the initial registered office of this corporation.

ARTICLE IV
Mailing Address

The mailing address of this corporation to which the Corporate Division may mail notices until the principal office of the corporation has been designated in an annual report is PacifiCorp Power Marketing, Inc., 700 NE Multnomah, Suite 1600, Portland, Oregon 97232, Attention: Secretary.

ARTICLE V
Incorporator

The name and address of the incorporator executing these Articles of Incorporation is Sanjiv N. Kripalani, whose address is 900 SW Fifth Avenue, Suite 2300, Portland, Oregon 97204-1268.

PDX1-171104.1 20014 0018

03/15

03169508216 831.219 50.00

ARTICLE VI
Shares

(a) The total number of shares of stock which the corporation shall have authority to issue is 1,000 shares of common stock.

(b) Each share of the common stock of this corporation, after the consideration therefore as fixed by the Board of Directors has been fully paid in, shall be non-assessable and shall not be subject to assessment to pay the debts of the corporation.

(c) Subject to statutory or other limitations on shareholder distributions that may be applicable at the time of acquisition, the corporation is authorized to acquire its own shares. Shares so acquired shall constitute authorized but unissued shares. The corporation is authorized to reissue from time to time shares that it acquires.

ARTICLE VII
Indemnification

(a) The corporation shall indemnify to the fullest extent then permitted by law any person who is made, or threatened to be made, a party to any threatened, pending, or completed action, suit, or proceeding, whether civil, criminal, administrative, investigative, or otherwise (including an action, suit, or proceeding by or in the right of the corporation) by reason of the fact that the person is or was a director or officer of the corporation or is or was serving at the request of the corporation as a director or officer of another corporation, partnership, joint venture, trust, or other enterprise against all expenses (including attorneys' fees), judgments, amounts paid in settlement, and fines actually and reasonably incurred in connection therewith.

(b) Expenses incurred in connection with an action, suit, or proceeding may be paid or reimbursed by the corporation in advance of final disposition of such action, suit, or proceeding upon receipt of an undertaking by or on behalf of the director or officer to repay such amounts if it shall ultimately be determined that such person is not entitled to be indemnified by the corporation.

(c) The indemnification provided hereby shall not be deemed exclusive of any other rights to which those indemnified may be entitled under any statute, bylaw, agreement, vote of shareholders or directors, or otherwise, both as to action in any official capacity and as to action in another capacity while holding an office, and shall continue as to a person who has ceased to be a director or officer and shall inure to the benefit of the heirs, executors, and administrators of such person.

(d) The corporation shall have power to purchase and maintain insurance on behalf of any person who is or was a director, officer, employee, or agent of the corporation, or fiduciary with respect to any employee benefit plans of the corporation, or is or was serving at the request of the corporation as a director, officer, employee, or agent, or as a fiduciary of an employee benefit plan, of another corporation, partnership, joint venture, trust, or other enterprise, against any liability asserted against and incurred by the person in any such capacity, or arising out of the person's status as such, whether or not the corporation would have the power to indemnify the person against such liability under the provisions of this Article or the Act.

(e) Any person other than a director or officer who is or was an employee or agent of the corporation, or fiduciary within the meaning of the Employee Retirement Income Security Act of 1974 with respect to any employee benefit plans of the corporation, or it or was serving at the request of the corporation as an employee or agent of another corporation, partnership, joint venture, trust, or other enterprise, may be indemnified to such extent as the board of directors in its discretion at any time or from time to time may authorize.

ARTICLE VIII
Director's Liability

No director of the corporation shall be personally liable to the corporation or its shareholders for monetary damages for conduct as a director; provided that this Article shall not eliminate the liability of a director for any act or omission for which such elimination of liability is not permitted under the Act. No amendment to the Act which further limits the acts or omissions for which elimination of liability is permitted shall affect the liability of a director for any act or omission which occurs prior to the effective date of such amendment.

To evidence the adoption of these Articles of Incorporation, I have signed them on March 15, 1995.

Sanjiv Kripalani

Sanjiv N. Kripalani, Incorporator

AMENDED ANNUAL REPORT

Corporation Division
www.filinginoregon.com

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Mar 13, 2017
OREGON SECRETARY OF STATE

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REGISTRATION DATE

03/15/1995

BUSINESS NAME

AVANGRID RENEWABLES, LLC

BUSINESS ACTIVITY

HOLDING COMPANY FOR RENEWABLE ENERGY ASSETS.

MAILING ADDRESS

1125 NW COUCH ST STE 700
PORTLAND OR 97209 USA

TYPE

DOMESTIC LIMITED LIABILITY COMPANY

PRIMARY PLACE OF BUSINESS

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PORTLAND OR 97209 USA

JURISDICTION

OREGON

REGISTERED AGENT

15872088 - CORPORATION SERVICE COMPANY

1127 BROADWAY STREET NE STE 310
SALEM OR 97301 USA

If the Registered Agent has changed, the new agent has consented to the appointment.

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By my signature, I declare as an authorized authority, that this filing has been examined by me and is, to the best of my knowledge and belief, true, correct, and complete. Making false statements in this document is against the law and may be penalized by fines, imprisonment, or both.

By typing my name in the electronic signature field, I am agreeing to conduct business electronically with the State of Oregon. I understand that transactions and/or signatures in records may not be denied legal effect solely because they are conducted, executed, or prepared in electronic form and that if a law requires a record or signature to be in writing, an electronic record or signature satisfies that requirement.

ELECTRONIC SIGNATURE

NAME

BENJAMIN W. LACKEY

TITLE

SECRETARY

DATE SIGNED

03-13-2017

EXHIBIT B
GENERAL INFORMATION ABOUT THE PROPOSED FACILITY

OAR 345-021-0010(1)(b)

TABLE OF CONTENTS

Figures

B.1 INTRODUCTION

This exhibit summarizes general descriptive information about the Montague Wind Power Facility (Facility) under OAR 345-021-0010(1)(b), specifically as it relates to Facility modifications proposed by Montague Wind Power Facility, LLC (Montague) as part of *Request for Amendment No. 4 Project Description and OAR Division 27 Compliance* (referred to herein as RFA 4).

B.2 SUMMARY OF INFORMATION PROVIDED

Montague proposes the following key changes to the Facility:

- **Expanded site boundary** – RFA 4 will expand the previously approved site boundary and micrositing corridor by approximately 13,365 acres. The newly acquired land (previously under lease by another wind developer and part of the Baseline Wind Project) will be used to relocate turbines into new areas that allow Montague to avoid or minimize impacts on sensitive resources while maximizing use of the wind resource.
- **Addition of Solar Array** – Montague may add photovoltaic solar generation (referred to in RFA 4 as a "solar array") occupying up to 640 acres within the proposed expanded site boundary to stabilize the wind resource and provide flexibility in responding to market and customer demands.
- **Addition of Battery Storage** – Montague may install a battery storage system capable of storing up to 100 megawatts (MW) of energy. The optional battery storage system will support wind and solar generation, help stabilize the wind resource, and provide flexibility in responding to market and customer demands.

The information summarized in this exhibit and described in RFA 4 demonstrates that the proposed expanded site boundary, solar array, and battery storage system can be designed, engineered, constructed, operated, and retired in a manner that satisfies the applicable Energy Facility Siting Council (EFSC; Council) standards.

B.3 CONDITION COMPLIANCE

The modifications proposed in RFA 4 do not alter Montague's ability to comply with the Council's earlier findings and approved conditions in the Third Amended Site Certificate[1]. However, Montague requests that Condition 27 be modified as shown under "(b)" below to remove the limitation on turbine peak generating capacity. This change is needed because ongoing advancements in turbine technology allow greater generating capacity without changes in turbine dimensions. The other provisions of Condition 27 related to turbine dimensions, in combination with conditions such as 107 regarding noise levels, are sufficient to enforce compliance with the standards described in this amendment request.

27 The certificate holder shall construct a facility substantially as described in the site certificate and may select turbines of any type, subject to the following restrictions and compliance with all other site certificate conditions. Before beginning construction, the certificate holder shall provide to the Department a description of the turbine types selected for the facility demonstrating compliance with this condition.

(a) The total number of turbines at the facility must not exceed 269 turbines

[1] EFSC. 2017a. *Third Amended Site Certificate for Montague Wind Power Facility*. July 11.

(b) The combined peak generating capacity of the facility must not exceed 404 megawatts ~~and the peak generating capacity of any individual turbine must not exceed 3.6 megawatts.~~

(c) The turbine hub height must not exceed 100 meters and the maximum blade tip height must not exceed 150 meters

(d) The minimum blade tip clearance must be 14 meters above ground

(e) The certificate holder shall request an amendment of the site certificate to increase the combined peak generating capacity of the facility beyond 404 megawatts, to increase the number of wind turbines to more than 269 wind turbines or to install wind turbines with a hub height greater than 100 meters, a blade tip height greater than 150 meters or a blade tip clearance less than 14 meters above ground.

B.4 DESCRIPTION OF THE PROPOSED FACILITY

RFA 4 provides a complete description of components proposed for Phase 2 development. Figures attached to this exhibit support responses to applicable provisions under OAR 345-021-0010(1)(b) and are cross-referenced in RFA 4 to support the description of proposed Phase 2 components.

Montague proposes three key changes to the Facility in RFA 4:

1. Expand the site boundary and micrositing corridor to encompass an additional approximately 13,365 acres of land adjacent to the approved site boundary. The newly acquired land (previously under lease by another wind developer and part of the Baseline Wind Project) is needed to relocate turbines, maximize use of the wind resource, and avoid or minimize impacts to sensitive resources within the approved site boundary. Turbines were previously approved for construction but now will be constructed within both the approved and the proposed expanded site boundary.

2. Add a solar array occupying up to 640 acres in a designated solar micrositing area within the proposed expanded site boundary. As presented, the solar array's nominal and average electrical generating capacity will be 100 MW[2]. The actual generating capacity could be greater but the footprint of the array will not exceed 640 acres of permanent disturbance within the solar micrositing area. The solar array is intended to stabilize the wind resource and provide flexibility in responding to market and customer demands.

3. Add a battery storage system as a related or supporting facility to store and later discharge energy generated by the Facility. The battery storage system will be capable of storing up to 100 MW of energy, and will dispatch energy when needed to stabilize the wind resource and provide flexibility in responding to market and customer demands.

Montague seeks flexibility to install any combination of wind and solar power generation for Phase 2 as long as the maximum generation output for Phase 2 does not exceed 202 MW and the solar array does not occupy more than 640 acres. The total maximum generation output for both Phases 1 and 2 will not exceed 404 MW as originally approved by EFSC.

[2] Based on the ORS 469.300(4) definition of average generating capacity for all energy facilities besides wind and geothermal.

The vendor, size, number, and actual generating capacity of Phase 2 turbines have not yet been determined. RFA 4 does not seek to change the range of turbine types or sizes or maximum number of turbines for the Facility from what EFSC originally approved. Notwithstanding the proposed change to Condition 27 to remove the nameplate capacity limit, RFA 4 does not seek to change the maximum generation output of the Facility. For purposes of analyzing the range of potential impacts associated with RFA 4, the three design scenarios described in RFA 4 are considered.

OAR 345-021-0010(1)(b) *Information about the proposed facility, construction schedule and temporary disturbances of the site, including:*

OAR 345-021-0010(1)(b)(A) *A description of the proposed energy facility, including as applicable:*

(i) The nominal electric generating capacity and the average electrical generating capacity, as defined in ORS 469.300.

Response: The 269 turbines approved in the Site Certificate have a nominal electric generating capacity of up to 404 MW and an average electric generating capacity of up to 134.7 average megawatts (aMW).[3] The 81 turbines approved for construction under Phase 1 have a nominal electric generating capacity of 202 MW and an average electric generating capacity of 67.3 aMW.

The nominal electric generating capacity and average electric generating capacity for each Phase 2 design scenario are provided in Section 5.1 of RFA 4 and range from 67.4 aMW for the wind-only scenarios to 134 aMW for the wind and solar scenario.[4] As illustrated in the three design scenarios, Phase 2 will not exceed the remaining 202 MW of the 404-MW generating capacity approved for the Facility in the Site Certificate and will maintain compliance with Site Certificate Condition 27(a) and (b), as modified.

(ii) Major components, structures and systems, including a description of the size, type and configuration of equipment used to generate electricity and useful thermal energy.

Response: The major components, structures, and systems for Phase 2 include wind turbines and a solar array that could be arranged in the design scenarios described in RFA 4. The following sections provide an overview of these major components and refer to figures used to support the descriptions in RFA 4.

B.4.1 Wind Turbines

Wind turbines used for Phase 2 will be the same type and size as described in RFA 3 and approved by the Council in the Final Order on Amendment 3[5]. The turbine hub-height will not exceed 328 feet (100 meters), the turbine blade tip height will not exceed 492 feet (150 meters), and the minimum blade tip clearance will not be less than 46 feet (14 meters).

[3] EFSC. 2017a. *Third Amended Site Certificate for Montague Wind Power Facility*. July 11.

[4] Based on the Oregon Revised Statute 469.300(4) definition of average generating capacity for energy facilities.

[5] EFSC. 2017b. *Final Order on Request for Contested Case and Amendment #3 of the Site Certificate for the Montague Wind Power Facility*. p. 56. July 12.

Additional turbine specifications and dimensions are listed in Table 2 of RFA 4 and are consistent with the specifications and dimensions approved in Site Certificate Condition 27.[6] The combined number of turbines from Phases 1 and 2 will not exceed 162 turbines, well within the total number of turbines (269) approved in the Site Certificate.

Major components, structures, and systems of the wind facility components that will be used in the Phase 2 design scenarios are described in RFA 4 in accordance with OAR 345-021-0010(1)(b)(A)(ii) and include the size, type, and configuration of the turbines, towers, foundations, and generator step-up transformer and transformer foundations.

The following figures are referenced in RFA 4 and attached to this exhibit:

- Figure B-1 shows a typical wind turbine and tower.
- Figure B-2 shows a typical turbine site plan.

B.4.2 Photovoltaic Solar Generation (Solar Array)

Montague seeks the flexibility to construct a solar array as part of Phase 2. The solar array option is intended to help stabilize the wind resource. As described in RFA 4, construction of the solar array will occur within an area designated as the "solar micrositing area," which is a portion of the proposed expanded site boundary covering 1,235 acres of nonirrigated, cultivated agricultural land. Within the solar micrositing area, the solar array will permanently occupy up to 640 acres. For the purpose of this analysis, Montague evaluates a 100-MW solar array occupying approximately 479 acres within the solar micrositing area. The 100-MW solar array on 479 acres represents the worst-case scenario for evaluating potential land use and visual impacts because it presents the maximum disturbance to ongoing agricultural operations and surrounding properties (see Exhibits K and R). The locations of the solar micrositing area and solar array layout used in this analysis are shown on Figures C-6 and C-7 in Exhibit C. The solar array site plan and facilities arrangement are shown on Figure B-3. During final design, the solar array will be located within the solar micrositing area to minimize potential agricultural impacts.

As presented, the solar array's nominal and average electrical generating capacity will be 100 MW[7], as represented by Design Scenario C. The actual generating capacity could be greater but the footprint of the array will not exceed 640 acres of permanent disturbance within the solar micrositing area. The use of solar generation will depend on final design and the solar array could be constructed anywhere within the solar micrositing area. For the purpose of this analysis, the solar array and its associated impacts are described under Design Scenario C (see Section 5.1 in RFA 4).

Major components, structures, and systems of the solar array are described in Section 3.3.1.2 of RFA 4 in accordance with OAR 345-021-0010(1)(b)(A)(ii) and include the solar modules, trackers, posts, cabling, inverters, transformers, collection system, and site access, service roads, perimeter fencing, and gates.

The following figures referenced in RFA 4 are attached to this exhibit:

- Figure B-3 shows the solar array site plan and facilities arrangement for Design Scenario C.

[6] EFSC. 2017a. *Third Amended Site Certificate for Montague Wind Power Facility*. pp. 10-11. July 11.

[7] Based on the ORS 469.300(4) definition of average generating capacity for all energy facilities besides wind and geothermal.

- Figure B-4 provides an example illustration of the solar module components described in Section 3.3.1.2 of RFA 4.
- Figure B-5 provides an example illustration of an installed module on the tracker described in Section 3.3.1.2 of RFA 4.

B.4.3 Flexibility Regarding Turbine Vendor, Generating Capacity, Number, and Final Layout

The turbine vendor, number, and actual generating capacity have not yet been determined. Because turbine technology is changing rapidly, RFA 4 analyzes impacts associated with two turbine models that represent a range of turbine technologies (i.e., encompassing the scale and impacts of the turbines) that could potentially be used at the Facility. The actual turbines selected will not exceed the impacts analyzed in RFA 4 but depending on the turbine technology available at the time of construction, individual turbine generating capacity could exceed 3.6 MW, resulting in the need to construct fewer turbines. If turbines with greater nameplate generating capacity are selected, their dimensions will not exceed those described in the Final Order on Amendment 3[8] and Site Certificate Condition 27 (as amended).

Montague requests this flexibility to ensure that Phase 2 development incorporates the optimum turbine design available at the time of construction. In addition, Montague requests micrositing flexibility for the Phase 2 facilities within the approved and proposed expanded micrositing corridors described in RFA 4 and shown on Figures C-2, C-4, and C-6 in Exhibit C. Before construction, Montague will determine the number of turbines, the spacing between turbines, and their precise locations within the micrositing corridor, based on wind resource, site suitability of the selected turbine, and the turbine setbacks outlined in the Site Certificate.

To address advancements in turbine technologies, Montague requests that Site Certificate Condition 27 be modified to remove the individual limit on turbine nameplate capacity. Wind turbine technology is changing rapidly and new turbines are coming into market that have a greater generating capacity with the same maximum blade tip height, minimum blade tip clearance, maximum hub height, and noise characteristics. Montague affirms that compliance with the existing Site Certificate conditions will be sufficient to comply with standards as analyzed in the application and subsequent amendments, including this one, and a restriction on turbine nameplate capacity does not provide additional guarantees.

(iii) A site plan and general arrangement of buildings, equipment and structures.

Response: The site plan and general arrangement of buildings, equipment, and structures associated with the repositioned wind turbines in Phase 2 Design Scenarios A, B, and C are shown on Figures C-2, C-4, and C-6 in Exhibit C. The site plan and general arrangement of the solar array associated with Design Scenario C is illustrated on Figure B-3.

B.4.4 Other Equipment and Systems

(iv) Fuel and chemical storage facilities, including structures and systems for spill containment.

Response: Section 3.3.2.10 of RFA 4 describes spill containment methods applicable to the various components of the Phase 2 design scenarios and demonstrates continued compliance with Site Certificate Conditions 55 and 56.

[8] EFSC. 2017b. *Final Order on Request for Contested Case and Amendment #3 of the Site Certificate for the Montague Wind Power Facility*. p. 1. July 12.

(v) Equipment and systems for fire prevention and control.

Response: Section 3.3.2.10 of RFA 4 describes fire prevention and control methods applicable to the various components of the Phase 2 design scenarios and demonstrates continued compliance with Site Certificate Conditions 57 through 63, 76, and 77.

(vi) For thermal power plants:

(I) A discussion of source, quantity and availability of all fuels proposed to be used in the facility to generate electricity or useful thermal energy;

(II) Process flow, including power cycle and steam cycle diagrams to describe the energy flows within the system;

(III) Equipment and systems for disposal of waste heat;

(IV) The fuel chargeable to power heat rate;

(vii) For surface facilities related to underground gas storage, estimated daily injection and withdrawal rates, horsepower compression required to operate at design injection or withdrawal rates, operating pressure range and fuel type of compressors.

(viii) For facilities to store liquefied natural gas, the volume, maximum pressure, liquefaction and gasification capacity in thousand cubic feet per hour.

Response: Phase 2 design scenarios described in RFA 4 do not include the development of a thermal power plant or storage of liquefied natural gas. Therefore, this section is not applicable.

B.5 DESCRIPTION OF RELATED OR SUPPORTING FACILITIES

OAR 345-021-0010(1)(b)(B) *A description of major components, structures and systems of each related or supporting facility*.

Response: Section 3.3.2 of RFA 4 provides an overview of Phase 2 related or supporting facilities consisting of the optional battery storage system, power collection system, Phase 2 collector substation, supervisory, control, and data acquisition system (SCADA), modified 230-kilovolt (kV) transmission line route, meteorological (met) towers, operations and maintenance (O&M) building, transportation and access roads, additional construction areas, and other equipment and systems. Figures C-2, C-4, and C-6 in Exhibit C show the layout of these supporting facilities associated with Design Scenarios A, B, and C within the combined approved site boundary and proposed expanded site boundary. Figures referenced in Section 3.3.2 of RFA 4 are attached to this exhibit and summarized in the sections that follow.

B.5.1 Battery Storage System

As described in Section 3.3.2.1 of RFA 4, Phase 2 development allows for the option to construct and operate a battery storage system as a related or supporting facility for each design scenario. Montague is considering one of two battery options: lithium(Li)-ion batteries or a flow battery package. Both options could hold up to 100 MW of power in a series of modular, self-contained containers. Figures supporting the description of the battery storage system options, including a general arrangement and site plans, are as follows:

- Figure B-6 shows the general arrangement of the battery storage system components in relation to the approved and proposed Facility components.
- Figure B-7 simulates the design of a Li-ion battery storage system and a flow battery storage system.
- Figure B-8 shows a preliminary site plan of the Phase 2 collector substation and battery storage system for Design Scenarios A and B.
- Figure B-9 shows a preliminary site plan of the Phase 2 collector substation and battery storage system for Design Scenario C, including an interconnection with the solar array.

B.5.2 Power Collection System

The Facility power collection system will be constructed in the same manner as previously approved in the Site Certificate but in different locations. Although no changes to the power collection system components or operation are proposed from what was included in the approved Facility, a summary of Phase 2 components are provided here for ease of reference. The Phase 2 power collection system consists of a series of buried and aboveground collector lines that will be installed along and between the turbine strings and solar array to electrically connect generation facilities to the substation, as described in Section 3.3.2.2 of RFA 4. Buried collector lines will be installed at least 3 feet below the ground surface (referred to as 34.5-kV underground collector lines). However, for long runs or where site-specific considerations require, the collection system may be routed aboveground using overhead structures (referred to as 34.5-kV overhead collector lines). Design Scenario A will use the most length of collector lines as it has the most turbines over the widest area, and will use approximately 22.5 miles of buried collector lines and 9.4 miles of overhead collector lines. There is no change to the type or installation methods for the power collection system for Phase 2 from what was previously approved in the Site Certificate. The location of the 34.5-kV underground and overhead collector lines for each design scenario are shown on Figures C-2 through C-7 in Exhibit C.

Site Certificate Condition 88 states, "Based on geotechnical conditions or other engineering considerations, the certificate holder (Montague) may install segments of the collector system aboveground, but the total length of the aboveground segments must not exceed 27 miles."[9] Phase 1 will construct a total of 5.1 miles of 34.5-kV overhead collector lines and Phase 2 will install up to 9.4 miles of 34.5-kV overhead collector lines (under Design Scenario A). Therefore, the combined total length of overhead lines will be approximately 14.5 miles and within the 27 miles of 34.5-kV overhead collector lines approved under Site Certificate Condition 88. Geotechnical studies may be conducted prior to Phase 2 construction to verify if more collector lines are needed aboveground than currently planned in the preferred Phase 2 design scenario layout.

B.5.3 Phase 2 Collector Substation

The Site Certificate allows the construction of two substations.[10] One collector substation ("Phase 1 substation") will be constructed for Phase 1 along Old Tree Road within the approved site boundary. The second collector substation ("Phase 2 collector substation") will be relocated to along Oregon Highway 19 (OR 19) in the proposed expanded site boundary to serve Phase 2. As described in Section 3.3.2.3 in RFA 4, the Phase 2 collector substation will be situated within a fenced area of approximately 4 acres and will consist of circuit-breakers, power transformer(s),

[9] EFSC. 2017a. *Third Amended Site Certificate for Montague Wind Power Facility*. July 11.

[10] EFSC. 2017a. *Third Amended Site Certificate for Montague Wind Power Facility.* p. 3. July 11.

bus and insulators, disconnect switches, relaying, battery and charger, surge arrestors, AC and DC supplies, control house, metering equipment, SCADA provision, grounding, and associated control wiring.

B.5.4 SCADA System

The SCADA system will be constructed as previously approved in the Site Certificate but relocated to the proposed expanded site boundary. The SCADA system is described in Section 3.3.2.4 of RFA 4.

B.5.5 230-kV Transmission Line

The Council's prior findings assumed up to 19 miles of 230-kV transmission for the Facility.[11] Montague filed Change Request 3 in August 2017 (Montague, 2017) to reroute the 230-kV transmission line for Phase 1 to avoid WGS Category 1 habitat[12]. The modifications reduced the total length of the 230-kV transmission line to 10.8 miles from Bonneville Power Administration's Slatt substation to the Phase 1 substation. For Phase 2, an additional 3.0 miles of 230-kV transmission line will be constructed to connect the Phase 1 substation to the Phase 2 collector substation. Therefore, the combined length of the 230-kV will be approximately 13.8 miles, or less than the total length approved by the Council.

Approximately 1.7 miles of 230-kV transmission line associated with Phase 2 will be located in the approved site boundary, and the remaining approximately 1.3 miles will be in the proposed expanded site boundary (see Figure C-2 in Exhibit C). Montague proposed to designate a 0.5-mile-wide corridor along the modified 230-kV transmission line route. The transmission line could be constructed anywhere within this corridor or as otherwise approved by the Department during preconstruction compliance, as contemplated in revised Condition 18 (see Exhibit K). The modified 230-kV transmission line route will carry a maximum of 202 MW of power, resulting in a maximum current of 556 amps, which is consistent with the maximum generation output of Phase 2. The planned conductor is 1,272 kcmil "Bittern" with a current capacity of 1,184 amps. The proposed route modification is necessary for public service to ensure that power generated by Phase 2 Facility components is connected to the public electrical grid at the Bonneville Power Administration Slatt substation through the Phase 1 substation (see Exhibit K).

Montague considered a transmission line corridor between the Phase 1 substation and the Phase 2 collector substation that paralleled OR 19 and Old Tree Road. After evaluating this route, Montague determined that it is least preferred because of existing residences and ranching operations along OR 19 and Montague would be unable to meet the setback requirements using this corridor. The proposed Phase 2 transmission line corridor is the most direct route between collector systems while collocating on the northern boundary with Old Tree Road as much as possible (see Section B.7 for additional detail). However, Montague will work with Gilliam County to evaluate whether it may site a portion of the transmission line within the County's road right-of-way. Montague requests the ability to use either routing option in its final layout design as both would still be located within the designated 0.5-mile corridor.

[11] EFSC. 2010. *Final Order on the Application for Site Certificate for the Montague Wind Power Facility*. p. 9. September 10.

[12] Note that as discussed with ODOE, calculated impact for Phase 1 assume that Change Request 3 (Montague, 2017) will be approved.

B.5.6 Meteorological Towers

As described in Section 3.3.2.6 of RFA 4, Montague will relocate four of the six met towers previously approved in the Site Certificate to locations within the proposed expanded site boundary shown on Figures C-2, C-4, and C-6 in Exhibit C. Two met towers will be constructed for Phase 1 in the approved site boundary.

B.5.7 Operations and Maintenance Building

The Site Certificate allows the construction of two O&M buildings to support operations of the Facility[13]. For Phase 1, Montague plans to use the existing Leaning Juniper II O&M building located off of Weatherford Road. For Phase 2, Montague will construct an O&M building in the expanded site boundary near the Phase 2 collector substation. The size and shape of the building will be similar what was previously approved in the Site Certificate[14]. The relocated O&M building is also shown on Figures C-2, C-4, and C-6 in Exhibit C and is common to each Phase 2 design scenario.

B.5.8 Transportation and Access Roads

Consistent with the approved Site Certificate, Phase 2 will require construction of new gravel roads and improvements to some existing roads, to provide access for construction vehicles. Montague will construct new turbine access roads in the proposed expanded site boundary to support Phase 2, as described in Section 3.3.2.8 of RFA 4. The Council's prior approval included an analysis of approximately 71 miles of new access roads as described in the Final Order on the Site Certificate.[15] Phase 1 will build up to approximately 32.2 miles of new access roads. Phase 2 will require the construction of up to approximately 21.5 miles of new access roads to serve the maximum turbine layout, Design Scenario A. Therefore, the combined length of new access for Phases 1 and 2 will be approximately 53.8 miles, which is about 25 percent less than what was previously approved in the Site Certificate.

Generally, new access roads will be 20 feet wide (consistent with Site Certificate Condition 72), with up to an additional 80 feet temporarily disturbed for crane paths during construction (100 feet wide in total). New access roads associated with the Phase 2 design scenarios are shown on Figures C-2, C-4, and C-6 in Exhibit C. Permanent and temporary disturbances resulting from new access roads are identified in Tables C-2 through C-7 in Exhibit C. The new access roads may continue to be used during Facility operations.

The reduction in the total length of access roads is related to changes in the turbine layout and Montague's proposed use of existing roads. To limit new roads and associated impacts on agricultural activities, Montague will use existing non-County access roads and County roads within the site boundary. In some areas, Montague will upgrade the existing roads to handle expected Facility-related traffic. Montague assumes that up to 7.8 miles of existing roads will be improved in Phase 2, Design Scenario A (including approximately 4.4 miles of existing non-County access roads and approximately 3.4 miles of County roads). Many of these roads are in poor condition; therefore, the proposed improvements will have a long-term beneficial effect for the users of these roads.

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[13] EFSC. 2017b. *Final Order on Request for Contested Case and Amendment #3 of the Site Certificate for the Montague Wind Power Facility*. p. 3. July 12.

[14] EFSC. 2017b. *Final Order on Request for Contested Case and Amendment #3 of the Site Certificate for the Montague Wind Power Facility*. p. 3. July 12.

[15] EFSC. 2010. *Final Order on the Application for Site Certificate for the Montague Wind Power Facility*. p. 10. September 10.

Existing roads will be improved by widening, grading, and graveling within existing road right-of-way. Typical existing non-County roads are 8 to 12 feet wide, and will need to be widened up to 80 feet during construction for crane passage and up to 20 feet during operations. Portions of existing County roads OR 19, Berthold Road, Bottemiller Lane, Weatherford Road, and Baseline (Ione) Road are 16 to 30 feet wide, and will need to be widened up to 60 feet (within the existing road right-of-way) during construction and up to 30 feet during operations. Permanent and temporary disturbances resulting from road improvements are identified in Tables C-2 through C-7 in Exhibit C. Improvements to existing non-County access roads and County roads are consistent with those previously approved in the Site Certificate and will comply with Site Certificate Conditions 71 and 75, which require that Montague restore public roads to pre-construction condition or better and ensure the repair of any damage to County roads, respectively. Use of public roads is further described in Exhibit U.

B.6 DIMENSIONS OF MAJOR STRUCTURES AND FEATURES

OAR 345-021-0010(1)(b)(C) *The approximate dimensions of major facility structures and visible features*.

Response: The approximate dimensions of major Phase 2 structures and visible features for Design Scenarios A through C are described in Section 3.3 of RFA 4 and are shown on the various figures attached to this exhibit and summarized in Section B.5.

B.7 CORRIDOR EVALUATION AND SELECTION

OAR 345-021-0010(1)(b)(D) *If the proposed energy facility is a pipeline or a transmission line or has, as a related or supporting facility, a transmission line or pipeline that, by itself, is an energy facility under the definition in ORS 469.300, a corridor selection assessment explaining how the applicant selected the corridor(s) for analysis in the application. In the assessment, the applicant shall evaluate the corridor adjustments the Department has described in the project order, if any. The applicant may select any corridor for analysis in the application and may select more than one corridor. However, if the applicant selects a new corridor, then the applicant must explain why the applicant did not present the new corridor for comment at an informational meeting under OAR 345-015-0130. In the assessment, the applicant shall discuss the reasons for selecting the corridor(s), based upon evaluation of the following factors:*

Response: As described in Section B.5.5 and in Section 3.3.2.5 of RFA 4, Montague will construct about 3.0 miles of overhead 230-kV transmission line as a related or supporting facility to Phase 2. The modified 230-kV transmission line route is shown on Figure C-2 in Exhibit C.

Montague proposes to designate a 0.5-mile-wide corridor along the modified 230-kV transmission line route. The transmission line could be constructed anywhere in this corridor or as approved by the Department in preconstruction compliance consistent with revised Condition 18. Montague selected this corridor as there is no alternative route significantly different from the proposed corridor that would better meet Montague's needs and at the same time satisfy the Council's standards. Montague selected the most direct route between the Phase 1 substation and Phase 2 collector substation while avoid existing residences, farm operations, and collocating with Old Tree Road as much as possible. As described in Exhibit K in response to the applicable criteria of ORS 215.274, Montague considered a route that paralleled west side of OR 19 but concluded it would result in significant loss of the irrigated crop circles, and would violate lease restrictions outlined by the landowner in the underlying land leases. This route would also be too close to the existing residence, and not consistent with the 200-

foot setback from residential or other occupied structures required under Site Certificate Condition 89 related to electromagnetic fields. Routing the transmission line on the east side of OR 19 would impact existing ranching operations, and a route designed to bypass the ranch buildings and connect back to the highway would add unneeded length to the transmission line and require a greater number of poles in cultivated agricultural land.

In summary, there are no alternative routes that would better meet Montague's needs and at the same time satisfy the Council's standards.

(i) Least disturbance to streams, rivers and wetlands during construction;

Response: No streams, rivers, or wetlands will be disturbed by construction of the modified 230-kV transmission line route. See Exhibit J.

(ii) Least percentage of the total length of the pipeline or transmission line that would be located within areas of Habitat Category 1, as described by the Oregon Department of Fish and Wildlife;

Response: The modified 230-kV transmission line route would not be located in any areas of Habitat Category 1. See Exhibit P.

(iii) Greatest percentage of the total length of the pipeline or transmission line that would be located within or adjacent to public roads, as defined in ORS 368.001, and existing pipeline or transmission line rights-of-way;

Response: Approximately 1.0 mile or 33 percent of the modified 230-kV transmission line route is located adjacent to existing road right-of-way along Old Tree Road. If possible, Montague will site the transmission ling within the road right-of-way with the County's permission. This is the maximum length of the line that can be located adjacent to a public road while avoid existing residences, farm operations, and meeting the criteria under ORS 215.274. See Exhibit K.

(iv) Least percentage of the total length of the pipeline or transmission line that would be located within lands that require zone changes, variances or exceptions;

Response: No zone changes, variances, or exceptions would be required for the modified 230-kV transmission line route.

(v) Least percentage of the total length of the pipeline or transmission line that would be located in a protected area as described in OAR 345-022-0040;

Response: No portion of the modified 230-kV transmission line route will be located in a protected area as described in OAR 345-022-0040. See Exhibit L.

(vi) Least disturbance to areas where historical, cultural or archaeological resources are likely to exist; and

Response: The modified 230-kV transmission line route will not disturb areas where historical, cultural, or archaeological resources are likely to exist. See Exhibit S.

(vii) Greatest percentage of the total length of the pipeline or transmission line that would be located to avoid seismic, geological and soils hazards;

Response: The modified 230-kV transmission line route can be constructed to avoid adverse effects or danger from seismic, geological and soils hazards (such as potentially unstable slopes, potentially liquefiable soils, or long-term erosion hazards). See Exhibits H and I.

(viii) Least percentage of the total length of the pipeline or transmission line that would be located within lands zoned for exclusive farm use;

Response: The entire modified 230-kV transmission line route is located within Gilliam County's exclusive farm use (EFU) zone. As demonstrated in Exhibit K, the entire Facility site boundary and land use analysis area are included in Gilliam County's EFU zone and there is no alternative route that could connect the Phase 2 collector substation to the Phase 1 substation without crossing the County's EFU zone. Furthermore, the modified 230-kV transmission line route is permitted in the EFU zone pursuant to ORS 215.274, and Montague demonstrates compliance with the applicable criteria under ORS 215.274 in Exhibit K.

B.8 PIPELINE AND TRANSMISSION LINE

OAR 345-021-0010(1)(b)(E) *For any pipeline or transmission line, regardless of size:*

B.8.1 Length of Pipeline or Transmission Line

(i) The length of the pipeline or transmission line.

Response: Montague proposes a relocated, approximately 3.0-mile-long 230-kV transmission line route segment to connect the Phase 2 collector substation to the Phase 1 substation as shown on Figures C-2, C-4, and C-6 in Exhibit C. The relocated 230-kV transmission line route segment is a related or supporting facility and the route and line configuration is the same for Design Scenarios A through C. Section 3.3.2.5 in RFA 4 describes this modification of the previously approved 230-kV transmission line route.

B.8.2 Right-of-Way Width

(ii) The proposed right-of-way width of the pipeline or transmission line, including to what extent new right-of-way will be required or existing right-of-way will be widened.

Response: Montague lease agreements allow construction of the transmission line within the micrositing corridor; therefore, there is no defined right-of-way width for the 230-kV transmission line segment. For example, Montague does not hold "right-of-way agreements" for the construction and operation of the transmission line. It will be constructed within a one-half-mile-wide corridor within the leased area consistent with the construction impacts defined in Tables C-3, C-5, and C-7 in Exhibit C.

B.8.3 Public Right-of-Way

(iii) If the proposed corridor follows or includes public right-of-way, a description of where the facility would be located within the public right-of-way, to the extent known. If the applicant proposes to locate all or part of a pipeline or transmission line adjacent to but not within the public right-of-way, describe the reasons for locating the facility outside the public right-of-way. The applicant must include a set of clear and objective criteria and a description of the type of evidence that would support locating the facility outside the public right-of-way, based on those criteria.

Response: Section 3.3.2.5 in RFA 4 provides a description of where the segment of the relocated 230-kV transmission line route will cross the OR 19 public road right-of-way. Exhibit K demonstrates compliance with the applicable criteria of ORS 215.274 which provides evidence for locating a portion of the relocated 230-kV transmission line route segment outside of but adjacent to public right-of-way along Old Tree Road. Montague will work with Gilliam County to evaluate whether it may site a portion of the transmission line within the County's road right-of-way. Montague requests the ability to use either routing option in its final layout design as both would still be located within the designated 0.5-mile corridor.

B.8.4 Pipeline Diameter and Location

(iv) For pipelines, the operating pressure and delivery capacity in thousand cubic feet per day and the diameter and location, above or below ground, of each pipeline.

Response: Not applicable.

B.8.5 Transmission Line Voltage, Capacity, Current, and Structures

(v) For transmission lines, the rated voltage, load carrying capacity, and type of current and a description of transmission line structures and their dimensions.

Response: Montague proposes a relocated, approximately 3.0-mile-long segment to the approved 230-kV transmission line route to connect the Phase 2 collector substation to the Phase 1 substation. By incorporating this modification, the Facility's 230-kV transmission line becomes approximately 13.8 miles in total length, but remains an overall reduction to the previously approved approximately 19-mile-long route.[16] The proposed route modification is necessary for public service to ensure that power generated by Phase 2 Facility components is connected to the public electrical grid at the Bonneville Power Administration Slatt substation through the Phase 1 substation.

A description of the relocated, approximately 3.0-mile-long segment of the previously approved 230-kV transmission line, structures, and dimensions are provided in Section 3.3.2.5 of RFA 4. The relocated route segment is the same for Design Scenarios A through C (see Figures C-2, C-4, and C-6 in Exhibit C). The rated voltage, load-carrying capacity, and type of current for the relocated 230-kV transmission line segment remains the same as the previously permitted 230-kV transmission line.

B.9 CONSTRUCTION SCHEDULE

OAR 345-021-0010(1)(b)(F) *A construction schedule including the date by which the applicant proposes to begin construction and the date by which the applicant proposes to complete construction. Construction is defined in OAR 345-001-0010. The applicant shall describe in this exhibit all work on the site that the applicant intends to begin before the Council issues a site certificate. The applicant shall include an estimate of the cost of that work. For the purpose of this exhibit, "work on the site" means any work within a site or corridor, other than surveying, exploration or other activities to define or characterize the site or corridor, that the applicant anticipates or has performed as of the time of submitting the application*.

[16] EFSC. 2010. *Final Order on the Application for Site Certificate for the Montague Wind Power Facility*. p. 9. September 10.

Response: Section 3.4 in RFA 4 describes the Phase 2 construction schedule. The Phase 2 construction schedule will not alter Montague's compliance with Site Certificate Conditions 4, 24, and 25.

B.10 REFERENCES

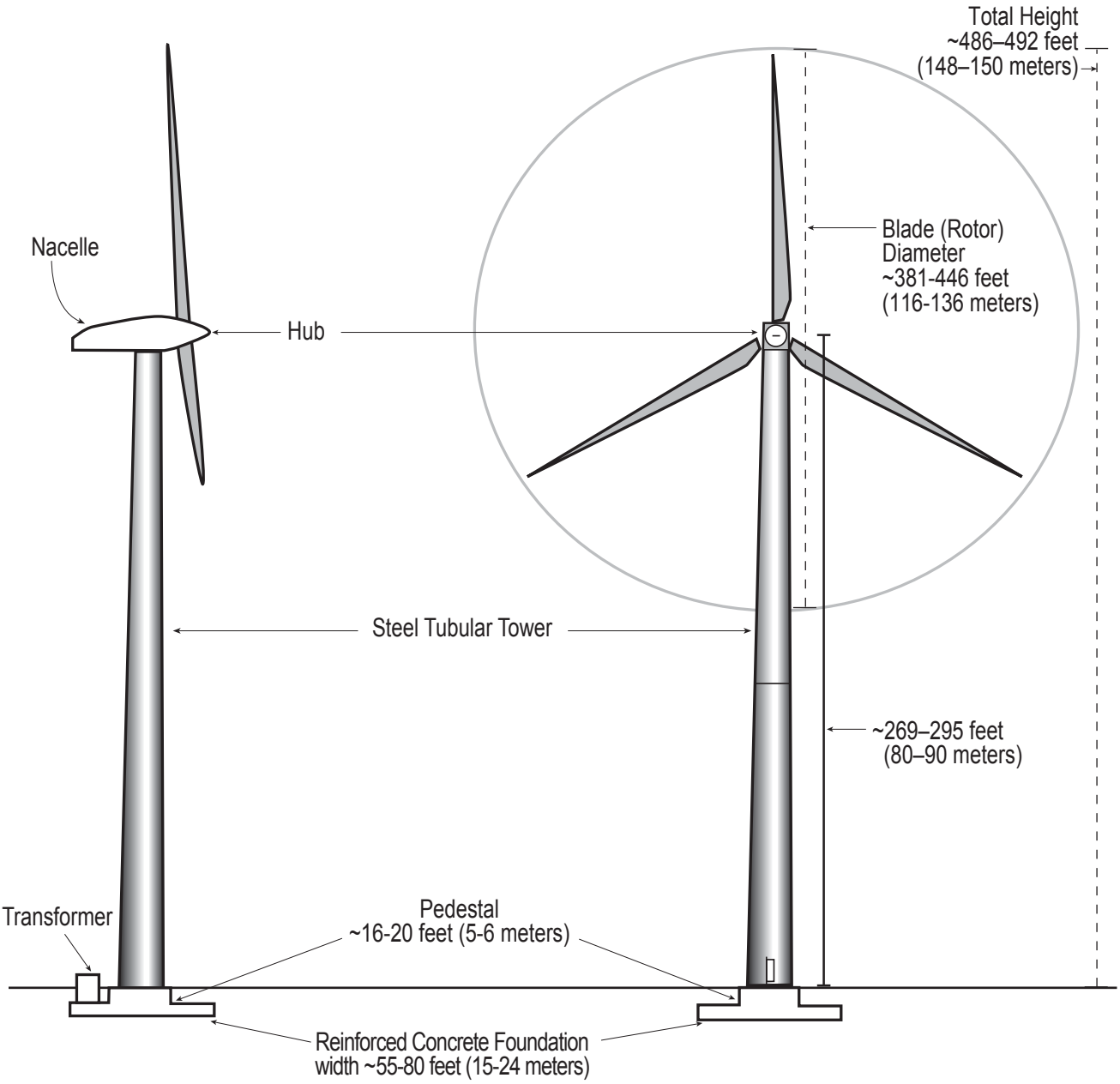
Energy Facility Siting Council (EFSC). 2010. *Final Order on the Application for Site Certificate for the Montague Wind Power Facility*. September 10.

Energy Facility Siting Council (EFSC). 2017a. *Third Amended Site Certificate for Montague Wind Power Facility.* July 11.

Energy Facility Siting Council (EFSC). 2017b. *Final Order on Request for Contested Case and Amendment #3 of the Site Certificate for the Montague Wind Power Facility.* July 12.

Montague Wind Power Facility, LLC. 2017. *Request for Determination Pursuant to OAR 345-027-0050(5) for Proposed Change to Montague Wind Power Facility – Change Request #3 (Proposed Site Boundary and Transmission Line Route Modifications)*. August.

Figures



AVANGRID RENEWABLES

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FIGURE B-1

Typical Wind Turbine and Tower

MONTAGUE WIND POWER FACILITY

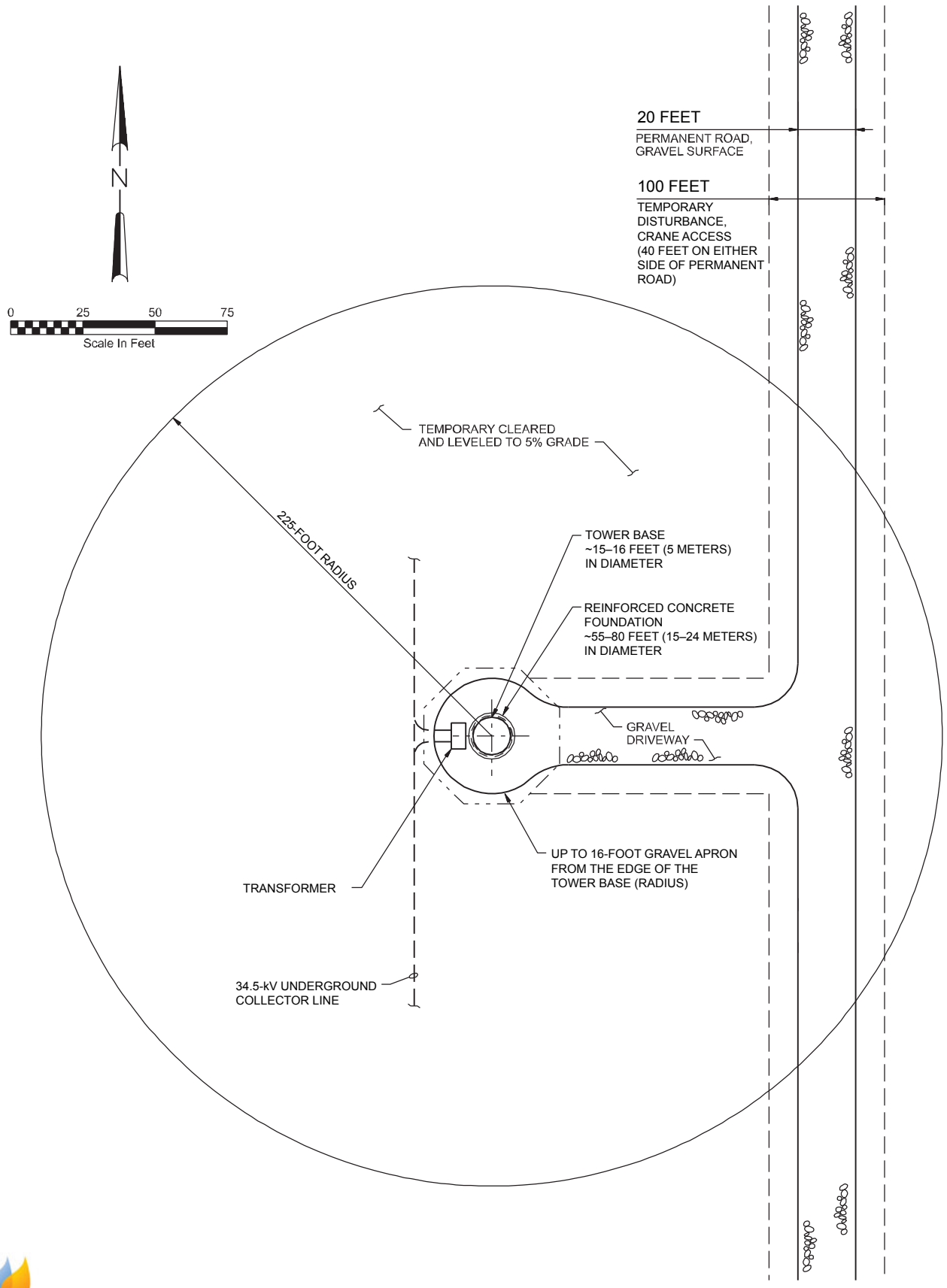

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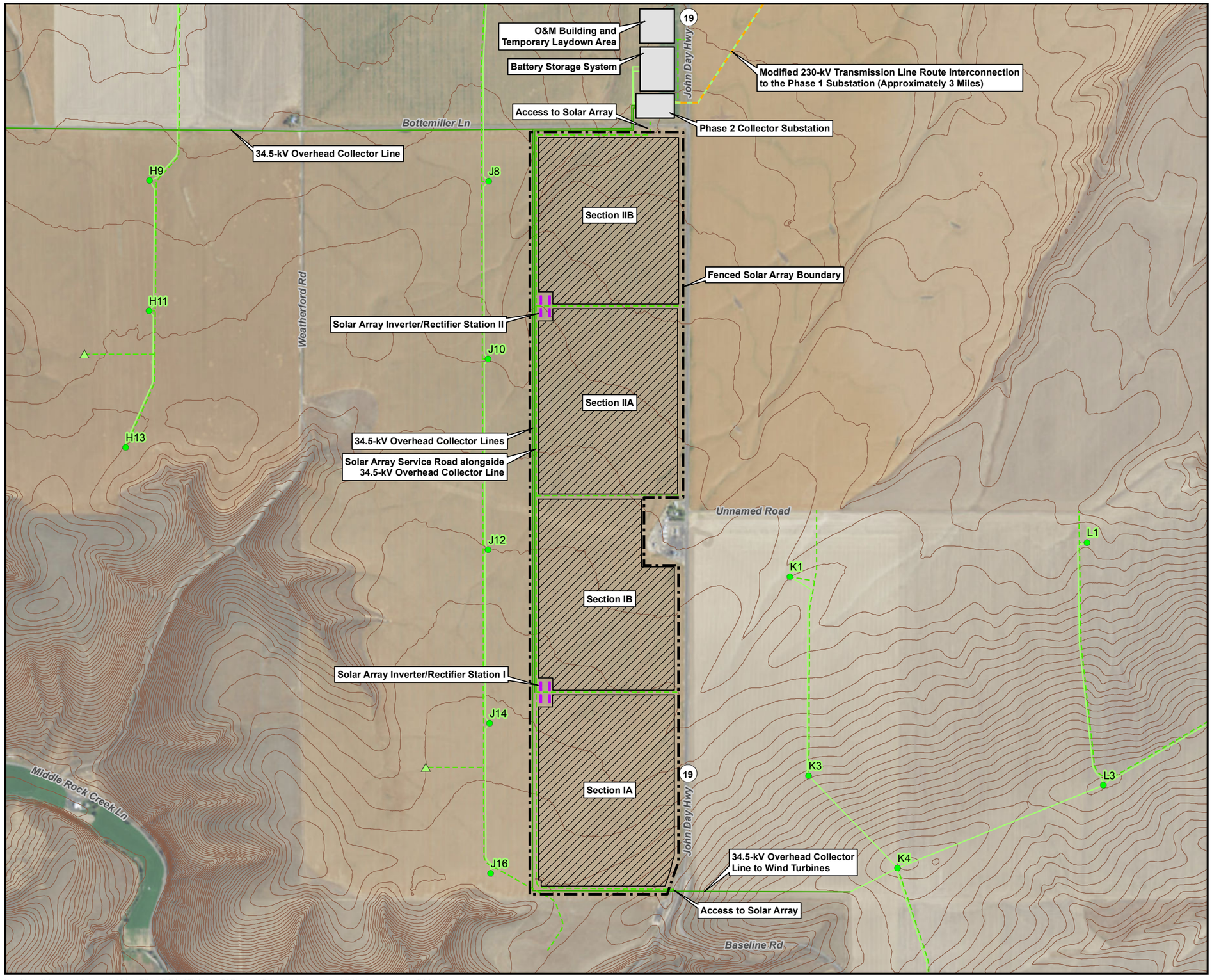
FIGURE B-2
Typical Turbine Site Plan
MONTAGUE WIND POWER FACILITY

Figure B-3
Solar Array Site Plan and Facilities Arrangement for Design Scenario C
Montague Wind Power Facility



Legend

- Fenced Solar Array Boundary
- Solar Array
- Solar Array Inverter/Rectifier
- Proposed Turbine
- Meteorological Tower
- Modified 230-kV Transmission Line Route
- 34.5-kV Overhead Collector Line
- 34.5-kV Underground Collector Line
- New Access Road
- Related or Supporting Facility Boundary
- 10-foot Interval Elevation Contour

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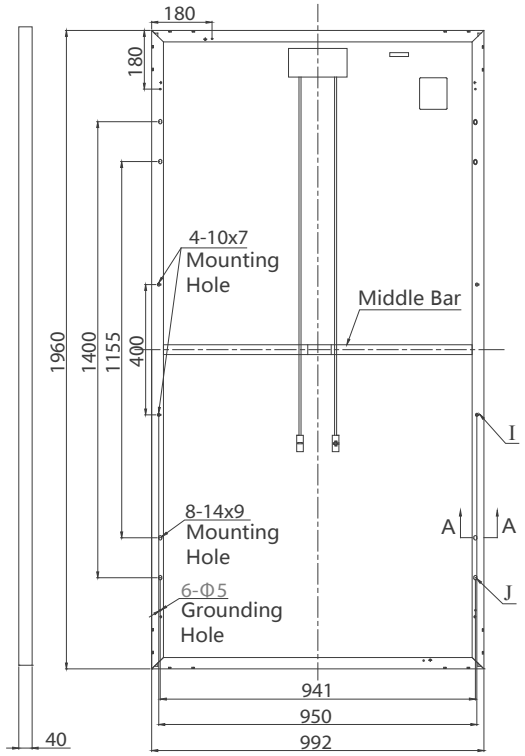
Basemap Source: ESRI World Terrain Base

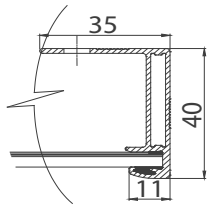
Example Solar Module
(Represented by Canadian Solar's Maxpower 1500 V Module)

TYPICAL ENGINEERING DRAWING

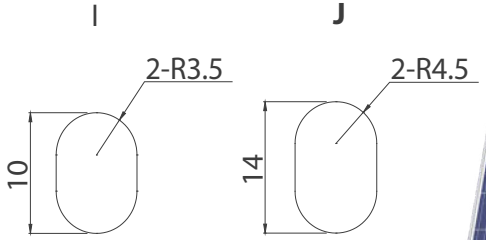
Rear View



Frame Cross Section A-A



Mounting Hole



Source: Canadian Solar Inc., 545 Speedvale Avenue West, Guelph, Ontario N1K 1E6, Canada, www.canadiansolar.com

MECHANICAL DATA

Dimensions **1960 x992 x40 mm**
(77.2 x39.1 x1.57 in)

Cell Type	Poly-crystalline, 6 inch
Cell Arrangement	72 (6 x12)
Weight	22.4 kg (49.4 lbs)
Front Cover	3.2 mm tempered glass
Frame Material	Anodized aluminium alloy
J-Box	IP67, 3 diodes
Cable	PV1500DC-F1 4 mm^2 (IEC) & 12 AWG 2000 V (UL), 1160 mm (45.7 in)
Connector	T4 series or UTX or MC4 series
Per Pallet	26 pieces, 635 kg (1400 lbs)
Per container (40' HQ)	624 pieces

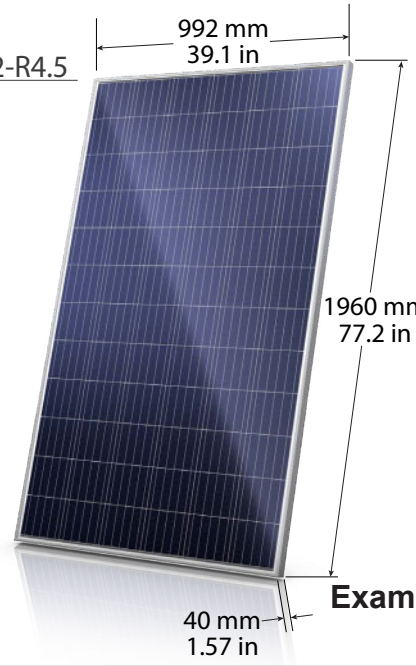


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FIGURE B-4
Example of Solar Module Components
MONTAGUE WIND POWER FACILITY

Example Tracker Components (Represented by Array Technologies DuraTrack HZ v3)

Source: Array Technologies Inc., 3901 Midway Place NE, Albuquerque, NM 87109 USA, www.arraytechinc.com.

GENERAL

Annual Power Consumption (kWh per 1 MW)	400 kWh per MW per year, estimated
Land Area Required per 1 MW	Approx. 5 to 5.75 acres per MW @ 33% GCR (site and design specific)

TYPICAL STRUCTURAL AND MECHANICAL FEATURES

Tracking Type	Horizontal single axis
Tilt Angle	0°
kW per Drive Motor	~ 650–800 kW DC
String Voltage	Up to 1,500V DC
Maximum Linked Rows	28
Maximum Row Size	80 modules (crystalline, 1,000V DC) & 90 modules (crystalline, 1,500V DC)
Drive Type	Rotating gear drive
Motor Type	2 HP, 3 PH, 480V AC
Motors per 1 MW AC	Less than 2
East-West / North-South Dimensions	Site / module specific
Array Height	54" standard, adjustable (46" min height above grade)
Ground Coverage Ratio (GCR)	Flexible, 28–45% typical
Modules Supported	Most commercially available, including frameless crystalline and thin film
Tracking Range of Motion	± 52°
Operating Temperature Range	-30°F to 140°F (-34°C to 60°C)
Module Configuration	Single-in-portrait standard. Dual-in-landscape (crystalline), four-in-landscape (thin film) also available.
Module Attachment	Single fastener, high-speed mounting clamps with integrated grounding. Traditional rails for crystalline in landscape, custom racking for thin film and frameless crystalline per manufacturer specs.
Materials	HDG steel and aluminum structural members

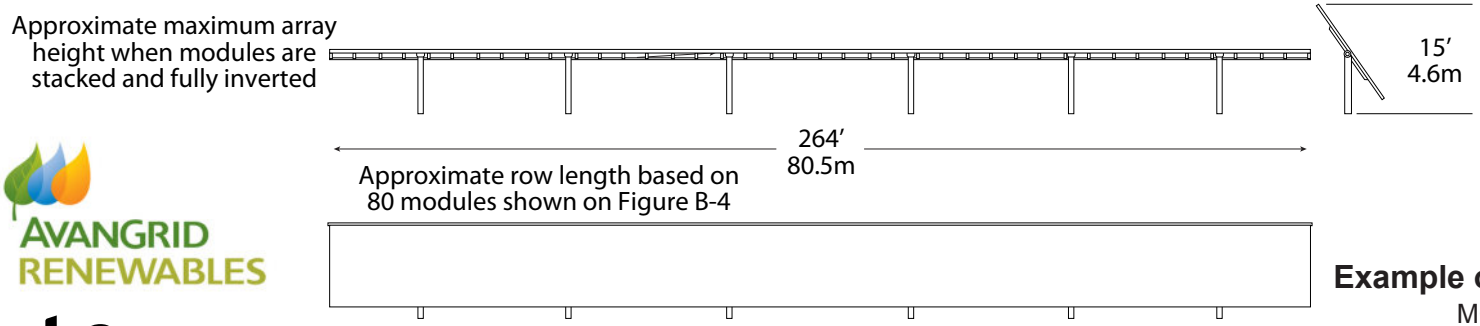

FIGURE B-5
Example of Solar Tracker Components
MONTAGUE WIND POWER FACILITY

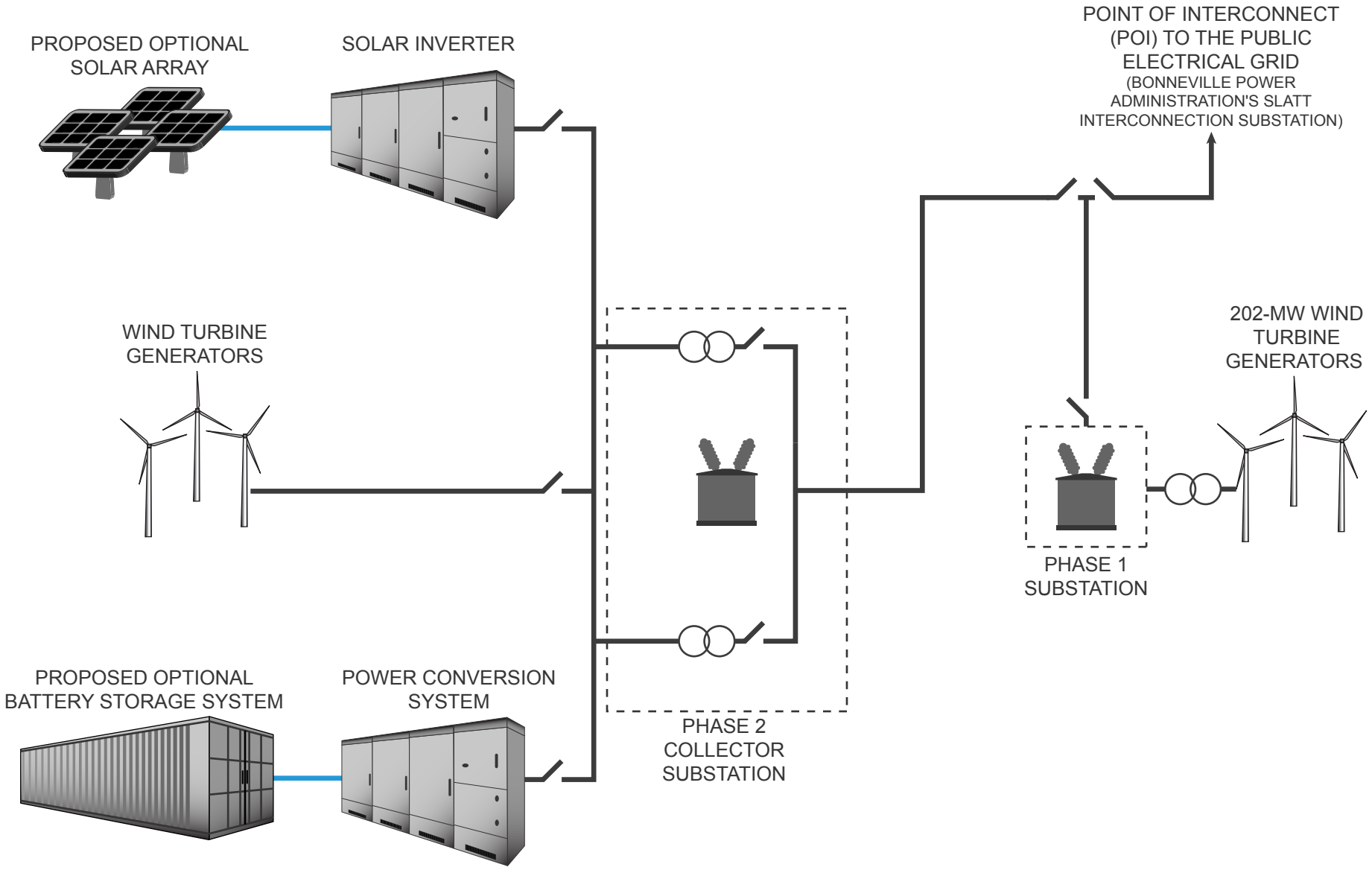

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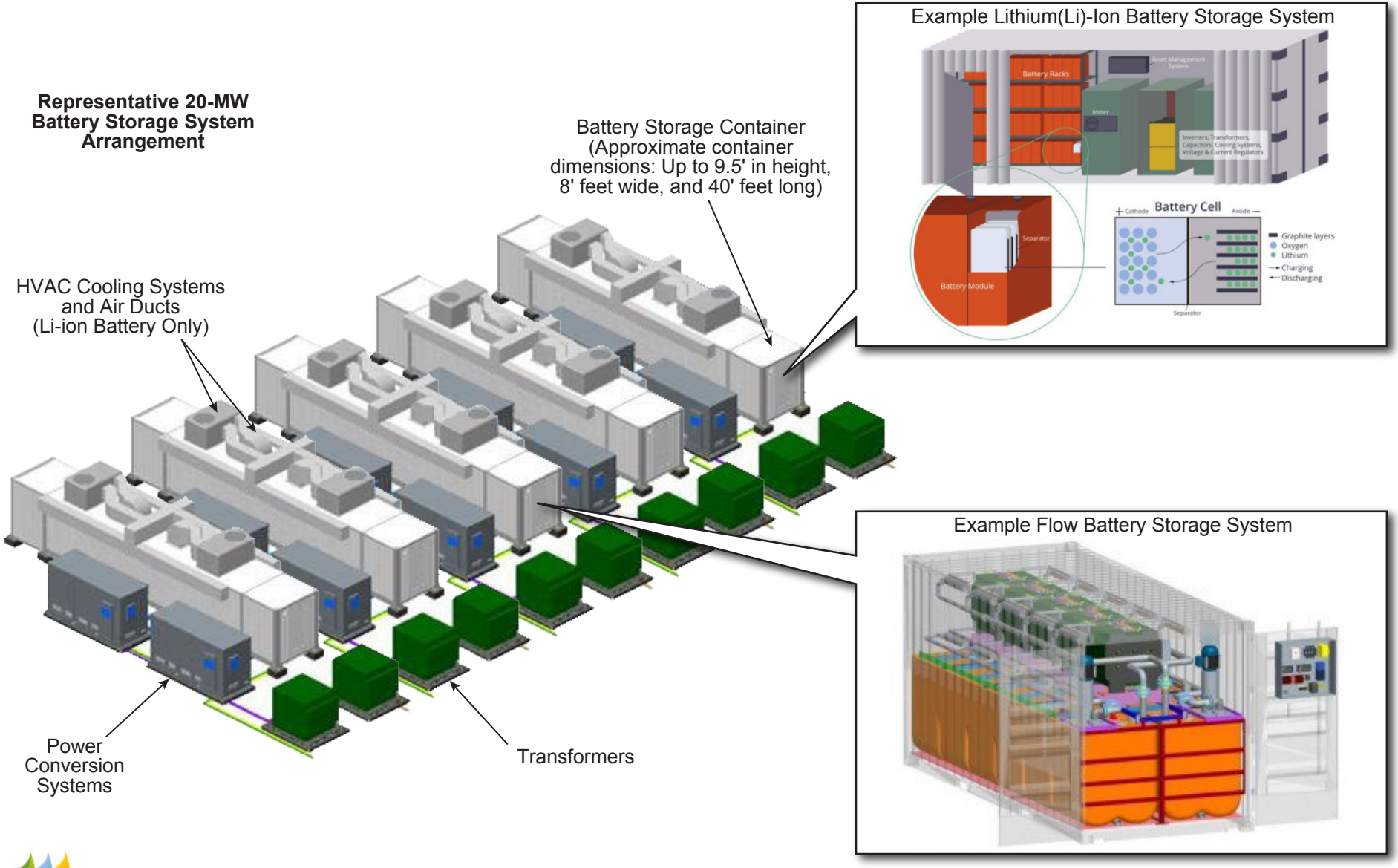
FIGURE B-6
Battery Storage System Facilities and Arrangement
MONTAGUE WIND POWER FACILITY

Representative 20-MW Battery Storage System Arrangement



AVANGRID RENEWABLES

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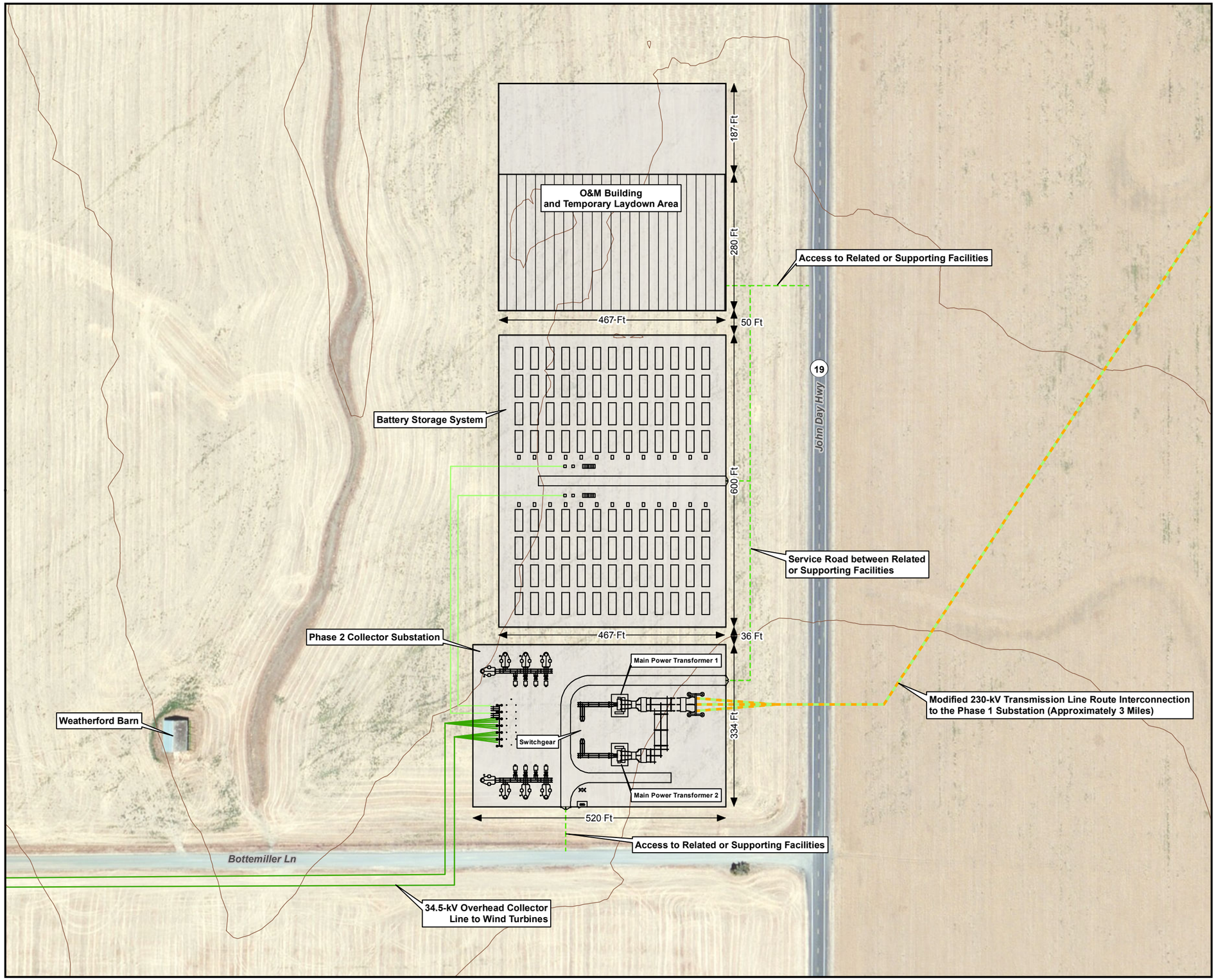
FIGURE B-7

Representative 20-MW Lithium(Li)-Ion or Flow Battery Storage System Arrangement

MONTAGUE WIND POWER FACILITY

Figure B-8
Site Plan for the Phase 2 Collector Substation and Battery Storage System: Design Scenarios A and B
Montague Wind Power Facility



Legend

- Modified 230-kV Transmission Line Route
- 34.5-kV Overhead Collector Line
- 34.5-kV Underground Collector Line
- New Access Road
- Related or Supporting Facility Boundary
- O&M Building
- 10-foot Interval Elevation Contour

Note:
1. Design shown is conceptual and may differ from final design. Bidder is responsible for a final design that adheres to all applicable codes and standards.

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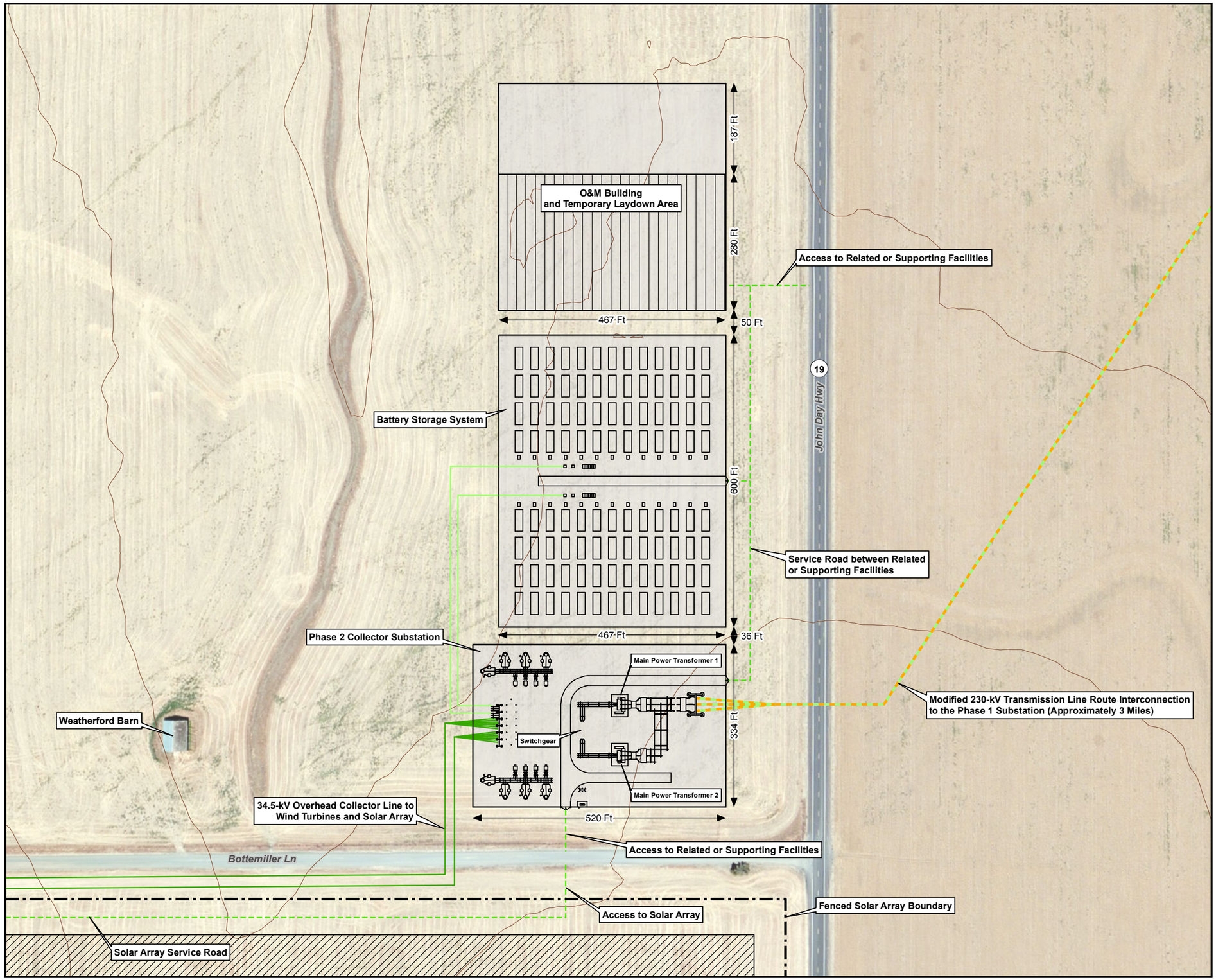
Basemap Source: ESRI World Terrain Base

Figure B-9
Site Plan for the Phase 2 Collector Substation and Battery Storage System: Design Scenario C
Montague Wind Power Facility



Legend

- Modified 230-kV Transmission Line Route
- 34.5-kV Overhead Collector Line
- 34.5-kV Underground Collector Line
- New Access Road
- Related or Supporting Facility Boundary
- O&M Building
- Fenced Solar Array Boundary
- Solar Array
- 10-foot Interval Elevation Contour

Note:
1. Design shown is conceptual and may differ from final design. Bidder is responsible for a final design that adheres to all applicable codes and standards.

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Basemap Source: ESRI World Terrain Base

EXHIBIT C
FACILITY LOCATION

OAR 345-021-0010(1)(c)

TABLE OF CONTENTS

C.1 INTRODUCTION

This exhibit contains information about the location of the Montague Wind Power Facility (Facility) under OAR 345-021-0010(1)(c), specifically as it relates to Facility modifications proposed by Montague Wind Power Facility, LLC (Montague) as part of *Request for Amendment No. 4 Project Description and OAR Division 27 Compliance* (referred to herein as RFA 4).

C.2 SUMMARY OF INFORMATION PROVIDED

The information included in this exhibit demonstrates the following:

- RFA 4 will expand the previously approved site boundary and micrositing corridor by approximately 13,365 acres. The resulting Facility site boundary (approved and proposed expanded site boundaries and micrositing corridors) will encompass approximately 47,056 acres.
- Montague has verified that the previously approved site boundary encompasses 33,691 acres. Although RFA 4 proposes to expand the Facility's site boundary from 33,691 acres to 47,056 acres, Table C-1 shows that, with the exception of permanent disturbances associated with the solar array in Design Scenario C, development of Phases 1 and 2 will disturb a smaller overall area than was previously approved.[1]
- Montague defines the proposed modified micrositing corridor as the areas included within the approved site boundary and the proposed expanded site boundary. OAR 345-001-0010 defines the site boundary as "the perimeter of the site of a proposed energy facility, its related or supporting facilities, all temporary laydown and staging areas and all corridors and micrositing corridors proposed by the applicant." The approved site boundary, proposed expanded site boundary, and associated micrositing corridor are shown on Figure C-1.

C.3 MAPS

OAR 345-021-0010(1)(c) *Information about the location of the proposed facility, including:*

OAR 345-021-0010(1)(c)(A) *A map or maps showing the proposed locations of the energy facility site, all related or supporting facility sites and all areas that might be temporarily disturbed during construction of the facility in relation to major roads, water bodies, cities and towns, important landmarks and topographic features, using a scale of 1 inch = 2000 feet or smaller when necessary to show detail.*

Response: This exhibit provides maps that show the Phase 2 components and layouts for the three design scenarios considered in this amendment request and described in Section 5.1 of RFA 4. To demonstrate that the final layout will be consistent with Energy Facility Siting Council (EFSC; Council) standards, the studies and analysis presented in RFA 4 are based on the maximum wind turbine layout (Design Scenario A) and the combined wind turbine and solar array layout (Design Scenario C). Maps showing each Facility layout associated with Phase 2 construction are described as follows:

- Figure C-1 (Facility Site Vicinity Map) compares the Facility's approximately 33,691-acre previously approved site boundary and micrositing corridor to the approximately 13,365-acre proposed expanded site boundary and micrositing corridor. The resulting combined site boundary and micrositing corridor will encompass approximately 47,056 acres.

[1] EFSC. 2010. *Final Order on the Application for Site Certificate for the Montague Wind Power Facility*. p. 98, Table 6. September 10.

- Figure C-2 (Phase 2 Design Scenario A: Maximum Wind Turbine Layout) shows the Phase 2 Design Scenario A layout and location for the previously approved 81 2.5-megawatt (MW) turbines and related or supporting facilities in relation to the approved site boundary and the approved Phase 1 construction layout.
- Figure C-3 (Phase 2 Design Scenario A: Detailed View) shows a detailed view of the previously approved 81 2.5-MW maximum turbine layout at a scale of 1 inch to 2,000 feet.
- Figure C-4 (Phase 2 Design Scenario B: Minimum Wind Turbine Layout) shows the Phase 2 Design Scenario B layout and location for 56 3.6-MW turbines and related or supporting facilities in relation to the approved site boundary and the approved Phase 1 construction layout.
- Figure C-5 (Phase 2 Design Scenario B: Detailed View) shows a detailed view of the previously approved 56 3.6-MW minimum turbine layout at a scale of 1 inch to 2,000 feet.
- Figure C-6 (Phase 2 Design Scenario C: Combined Wind Turbine and Solar Array Layout) shows the Phase 2 Design Scenario C layout and location for the 479-acre, 100-MW solar array and up to 40 2.5-MW turbines within the related or supporting facilities in relation to the approved site boundary and the approved Phase 1 construction layout.
- Figure C-7 (Phase 2 Design Scenario C: Detailed View) shows a detailed view of Phase 2 Design Scenario C at a scale of 1 inch to 2,000 feet.
- Figure C-8 (Permanent and Temporarily Disturbed Areas: Design Scenario A) shows the maximum wind turbine layout and areas that might be permanently and temporarily disturbed during construction of this scenario. This figure shows Design Scenario A components shifted into higher-rated habitats and uses the maximum disturbance areas described in Tables C-2 and C-3, respectively.
- Figure C-9 (Permanent and Temporarily Disturbed Areas: Design Scenario B) shows the minimum wind turbine layout and areas that might be permanently and temporarily disturbed during construction of this scenario. This figure shows Design Scenario B components shifted into higher-rated habitats and uses the disturbance areas described in Tables C-4 and C-5, respectively.
- Figure C-10 (Permanent and Temporarily Disturbed Areas: Design Scenario C) shows the combined wind turbine and solar array layout and areas that might be permanently and temporarily disturbed during construction of this scenario. This figure shows Design Scenario C components shifted into higher-rated habitats and uses the maximum disturbance areas described in Tables C-6 and C-7, respectively.
- Figure C-11 (Other Permitted Energy Facilities) shows the location of the Facility in relation to other permitted energy generation facilities within 10 miles of the combined site boundary.
- Figure C-12 (Site Boundary Overlap with Leaning Juniper IIB) shows overlap between the proposed expanded site boundary and the Leaning Juniper IIB wind facility site boundary, as amended on November 20, 2009.[2]

C.4 LOCATION AND DISTURBANCE AREAS

OAR 345-021-0010(1)(c)(B) *A description of the location of the proposed energy facility site, the proposed site of each related or supporting facility and areas of temporary disturbance, including the total land area (in acres) within the proposed site boundary, the total area of*

[2] EFSC. 2009. First Amended Site Certificate for the Leaning Juniper II Wind Power Facility. September 10.

permanent disturbance, and the total area of temporary disturbance. If a proposed pipeline or transmission line is to follow an existing road, pipeline or transmission line, the applicant shall state to which side of the existing road, pipeline or transmission line the proposed facility will run, to the extent this is known.

Response: Section 3.2 of RFA 4 provides a description of the location of the proposed Phase 2 Facility components. RFA 4 seeks to amend the Site Certificate to expand Montague's approved Facility site boundary onto land adjacent to the approved site boundary, in Gilliam County, Oregon (see Figure C-1). The proposed expanded site boundary encompasses all or portions of the following sections:

- Township 1 N, Range 21 E, Sections: 4, 5, 7, 8, 9, 14, 15, 16, 17, 18, 19, 20, 21, 22, 23, 25, 27, 28, 29, 30, 32, 34, 35, 36
- Township 1 N, Range 22 E, Sections: 18, 19, 29, 30
- Township 1 S, Range 21 E, Sections: 1, 2, 3, 4, 11, 12
- Township 1 S, Range 22 E, Section 7

The approximately 13,365-acre proposed expanded site boundary will accommodate elements of each of the three design scenarios associated with Phase 2 development for a total generating capacity of 202 MW. Portions of Phase 2 development for each design scenario will also occur within the previously approved 33,691 site boundary as shown on Figures C-2 through C-7. The Phase 2 components for each design scenario are proposed on private land for which Montague has negotiated long-term energy leases and has or will negotiate additional easements as required with the landowners.

As described in RFA 4, Montague verifies that the approved site boundary encompasses 33,691 acres. This total corrects the 33,402-acre site boundary cited in the Final Order on Amendment 3.[3] To further explain, the original Final Order on the Application identifies 33,485 acres within the approved site boundary.[4] Change Request #0 then added approximately 96 acres to the approved site boundary to allow the use of existing access road segments already constructed for the Leaning Juniper IIB wind facility.[5] Change Request #3 proposed an additional 92 acres to the approved site boundary to allow construction of a turbine access road and collector line along a more efficient path.[6]

Montague has also recently identified approximately 18 acres within the approved site boundary that are unaccounted for in the permitting history described above. These acres appear to be associated with an update to the boundary based on more accurate property survey data. When Facility permitting began in 2009-2010, not all property lines had been surveyed. Since then, property boundaries have been updated based on a survey conducted in 2017 to the standards of the American Land Title Association. These acres are now captured in the approved site boundary. Thus, the approved site boundary encompasses 33,691 acres.

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[3] EFSC. 2017b. *Final Order on Request for Contested Case and Amendment #3 of the Site Certificate for the Montague Wind Power Facility*. p. 4. July 12.

[4] EFSC. 2010. *Final Order on the Application for Site Certificate for the Montague Wind Power Facility*. p. 11. September 10.

[5] Oregon Department of Energy (ODOE). 2010. *Approval of Request for Determination Pursuant to OAR 345-027-0050(5) for Proposed Change to Montague Wind Power Facility – Change Request #0 (for construction of an approximately 1,000-foot segment of access road outside of the approved site boundary)*. September 28.

[6] Montague Wind Power Facility, LLC (Montague). 2017a. *Request for Determination Pursuant to OAR 345-027-0050(5) for Proposed Change to Montague Wind Power Facility – Change Request #3 (Proposed Site Boundary and Transmission Line Route Modifications)*.

RFA 4 proposes an approximately 3.0-mile-long modification to the previously approved 230-kilovolt (kV) transmission line route to connect the Phase 2 collector substation to the Phase 1 substation. The relocated route is described in Section 3.3.2.5 of RFA 4, will be constructed in the same manner as previously described in the Final Order[7] and approved in the Site Certificate (as amended), and is shown on Figures C-2 through C-7. No pipeline is associated with Phase 2 development.

C.4.1 Proposed Layout of Phase 2 Design Scenarios

Section 3 of RFA 4 describes the proposed location, major components, and related or supporting facilities for Phase 2 Design Scenarios A, B, and C.

The major components include the previously approved wind turbines that will be relocated within portions of the approved and proposed expanded site boundary and the optional solar array located within the proposed expanded site boundary. The associated related or supporting facilities consist of a new battery storage system, and the previously approved power collection system, Phase 2 collector substation, supervisory, control, and data acquisition system, 230-kilovolt transmission line, meteorological towers, operations and maintenance building, transportation and access roads, additional construction areas, and other equipment and systems. The location of these components for Phase 2 Design Scenarios A, B, and C are shown on Figures C-2, C-4, and C-6, respectively. Detailed views of the major components and related or supporting facilities at a scale of 1 inch to 2,000 feet are shown on Figures C-3, C-5, and C-7 for Design Scenarios A, B, and C, respectively.

C.4.2 Location of Phase 2 Micrositing Corridor

Montague defined the Phase 2 micrositing corridor to include the proposed expanded site boundary along with portions of the previously approved micrositing corridor. As previously approved in the Final Order on the Application[8] and in compliance with Site Certificate Condition 31, the micrositing corridor allows for flexibility in siting the final location of Phase 2 components. Accordingly, Montague proposes that components of the Phase 2 design scenarios be authorized anywhere within the identified micrositing corridors.[9] Montague has completed detailed resource surveys where Phase 2 components are sited based on preliminary design and has completed desktop surveys for the entire approved and proposed expanded site boundary. Site Certificate Conditions 49, 83, 94, and 95 require additional detailed surveys should the final Facility design require components to be sited outside of previously surveyed areas. Exhibits J, P, Q, and S describe the biological and cultural surveys that have been completed for Phase 2. During final design, Phase 2 will be microsited to avoid and minimize both temporary and permanent impacts to high-quality native habitat where practicable and to retain habitat cover in the general landscape. The Phase 2 will also be microsited to minimize impacts to ongoing agricultural operations, consisting predominately of cultivated agriculture.

C.4.3 Land Area of Phase 2 Design Scenarios

Table C-1 provides a comparison of permanent and temporary disturbances associated with the maximum wind turbine layout approved in the original Site Certificate in relation to the approved Phase 1 construction layout and Phase 2 design scenarios. Table C-1 demonstrates that while RFA 4 will result in a larger combined site boundary, with the exception of permanent disturbances associated with the solar array layout in Design Scenario C, the combined area of

[7] EFSC. 2010. *Final Order on the Application for Site Certificate for the Montague Wind Power Facility*. pp. 8-9. September 10.

[8] EFSC. 2010. *Final Order on the Application for Site Certificate for the Montague Wind Power Facility*. p. 12. September 10.

[9] As described in Section 3.3 of RFA 4, the solar array will be located with the defined solar micrositing area within the micrositing corridor. This subarea of the micrositing corridor is shown on Figures C-6 and C-7.

Phase 1 and Phase 2 will disturb a smaller overall area than was previously approved in the Site Certificate.

Tables C-2 and C-3 show the permanent and temporary disturbances for Design Scenario A which is the maximum wind turbine layout (see Figure C-8). Tables C-4 and C-5 show the permanent and temporary disturbances for Design Scenario B which is the minimum wind turbine layout (see Figure C-9). Tables C-6 and C-7 show the permanent and temporary disturbances for Design Scenario C which is the combined wind turbine and solar array layout (see Figure C-10). Because Montague seeks continued micrositing flexibility for Phase 2, temporary and permanent impacts were calculated based on the maximum disturbance areas associated with Design Scenario A and Design Scenario C. These scenarios were selected because the Design Scenario A layout represents the maximum disturbance area needed for 81 2.5-MW wind turbines to generate 202 MW of power. The Design Scenario C layout represents a larger disturbance area needed to produce 202 MW of power using a combination of 40 2.5-MW wind turbines and a 100-MW solar array.

For evaluation of the solar array, Montague considered a 100-MW solar layout that would occupy 479 acres within the solar micrositing area for Design Scenario C. This layout represents the worst-case scenario for purposes of analyzing land use impacts (see further discussion in Exhibit K). However, Montague seeks approval to permanently disturb up to 640 acres within the solar micrositing area because during final design, the solar array will be located within the solar micrositing area with the goal of minimizing potential agricultural impacts. The solar micrositing area is within the Phase 2 micrositing corridor described in Section C.4.2. Figures C-8 and C-10 show the permanent and temporarily disturbed areas for Design Scenarios A and C, respectively.

The design scenarios are analyzed in various exhibits using the most conservative estimate of disturbance. For example,

- For the scenic and aesthetic and noise evaluations (Exhibits R and X, respectively), both the maximum and minimum turbine layouts and the combined wind turbine and solar array layout were analyzed to determine the worst-case scenario.
- For the number of acres temporarily and permanently disturbed, the maximum layout was shifted into the highest-quality habitat and the maximum disturbance area was used (Exhibits C, I, J, K, L, P, Q, and S). Table C-8 identifies the most conservative estimate of disturbance for applicable exhibits.

A complete summary of the analysis performed to identify the layout providing the most conservative impact is included in the specific exhibits.

C.5 RELATION TO OTHER ENERGY GENERATION FACILITIES

OAR 345-021-0010(1)(c)(C) *For energy generation facilities, a map showing the approximate locations of any other energy generation facilities that are known to the applicant to be permitted at the state or local level within the study area as defined in OAR 345-001-0010 for impacts to local services.*

Response: Figure C-11 shows the Facility's combined site boundary in relation to other energy generation facilities within 10 miles. A small portion of the proposed expanded site boundary overlaps with a small portion of the Leaning Juniper IIB wind facility site boundary. Figure C-12

shows the overlap between the proposed expanded site boundary and the Leaning Juniper IIB wind facility site boundary, as amended on November 20, 2009.[10]

The purpose of the overlap between the two site boundaries is to provide Montague with the flexibility to construct a portion of the modified 230-kV transmission line route across a portion of the Leaning Juniper IIB wind facility site boundary. The modified 230-kV transmission line route will be constructed in Phase 2 as part of the Facility, and will not be constructed under Leaning Juniper IIB's amended Site Certificate. The overlap also provides Montague with the flexibility to use portions of the Leaning Juniper IIB micrositing corridor not used as part of the Leaning Juniper IIB wind facility.

C.6 REFERENCES

Energy Facility Siting Council (EFSC). 2009. *First Amended Site Certificate for the Leaning Juniper II Wind Power Facility*. September 10.

Energy Facility Siting Council (EFSC). 2010. *Final Order on the Application for Site Certificate for the Montague Wind Power Facility*. September 10.

Energy Facility Siting Council (EFSC). 2017a. *Third Amended Site Certificate for Montague Wind Power Facility.* July 11.

Energy Facility Siting Council (EFSC). 2017b. *Final Order on Request for Contested Case and Amendment #3 of the Site Certificate for the Montague Wind Power Facility*. July 12.

Montague Wind Power Facility, LLC (Montague). 2017a. *Request for Determination Pursuant to OAR 345-027-0050(5) for Proposed Change to Montague Wind Power Facility – Change Request #3 (Proposed Site Boundary and Transmission Line Route Modifications)*.

Montague Wind Power Facility, LLC (Montague). 2017b. *Preconstruction Compliance Submittal to ODOE for Site Certificate Condition 32*. August 15.

Oregon Department of Energy (ODOE). 2010. *Approval of Request for Determination Pursuant to OAR 345-027-0050(5) for Proposed Change to Montague Wind Power Facility – Change Request #0 (for construction of an approximately 1,000-foot segment of access road outside of the approved site boundary)*. September 28.

[10] EFSC. 2009. First Amended Site Certificate for the Leaning Juniper II Wind Power Facility. September 10.

Table C-1. Overview of Maximum Permanently and Temporarily Disturbed Areas

Disturbed Areas (acres)	**Original**	**Phase 1**	**Phase 2**			**Total Proposed Facility Disturbance** *(Approved Phase 1 Construction Layout plus Design Scenario)*		**Net Difference in Disturbance** *(Approved in Final Order [2010] minus the Total of Approved Phase 1 Construction Layout plus Phase 2 Design Scenario)*	
	Approved Final Order (2010)[a]	**Approved Phase 1 Construction Layout[b]**	**Design Scenario A[c]**	**Design Scenario B[d]**	**Design Scenario C[e]**	**A**	**C**	**A**	**C**
Permanent	256.8	81.4	79.6	76	546.2	161	627.6	(95.8)	370.8
Temporary	1,778	766	664	577	465.9	1,430	1,231.9	(348)	(546.1)

[a] EFSC. 2010. *Final Order on the Application for Site Certificate for the Montague Wind Power Facility*. p. 98, Table 6. September 10.

[b] Montague Wind Power Facility, LLC. 2017b. *Preconstruction Compliance Submittal to ODOE for Site Certificate Condition 32*. August 15.

[c] See Tables C-2 and C-3.

[d] See Tables C-4 and C-5.

[e] See Tables C-6 and C-7.

Table C-2. Design Scenario A – Permanently Disturbed Areas

Facilities	Notes	Units of Measurement	Montague			
			Dimensions per Unit	Number of Units	Acres	Miles
Wind Turbine Pads/Towers	1	Square feet per tower	1,809	81	3.36	
Phase 2 Collector Substation	2	Acres	3.99	1	3.99	
Battery Storage System	3	Acres	6.43	1	6.43	
O&M Building	4	Acres	3	1	3	
Meteorological Towers (self-supporting)	5	Square feet per tower	900	4	0.08	
Overhead 34.5-kV Collector Line Structures	6	Square feet per 2-pole location	24	249	0.14	
Overhead 230-kV Transmission Line Structures	6	Square feet per 2-pole location	40	34	0.03	
Access Roads and Turnarounds						
New 20-foot-wide turbine and met tower access roads	7	Feet of width per linear foot	20	113,476	52.10	21.5
Improved existing roads to 20 feet (except County roads)	8	Feet of width per linear foot	10	20,477	4.70	3.9
Improved existing County roads to 30 feet (within County right-of-way)	9	Feet of width per linear foot	14	18,011	5.79	3.4
Total Permanently Disturbed Area					**79.62 acres**	

1. Includes graveled area of pad, transformer, and disturbed area for each tower, excluding access road. The dimensions are based on a circular area of disturbance with a radius of 24 feet (includes a turbine tower with a radius of up to 8 feet and surrounding gravel area with a radius of up to 16 feet). These dimensions represent the maximum potential graveled area for the range of turbine types under consideration.
2. Includes the Phase 2 collector substation and surrounding graveled area and fence (467 feet by 600 feet). No temporary disturbance will occur outside the fenced area.
3. Includes the area within the fenced perimeter of the battery storage system (470 feet by 600 feet).
4. Includes the O&M building and surrounding graveled parking area and fence (467 feet by 280 feet).
5. Includes met tower foundation measuring approximately 28-feet-wide and surrounding graveled area.
6. Assumes two-pole H-frame structures.
7. Assumes 20-foot-wide road.
8. Assumes maximum of 20 feet of travel lanes or 10 feet of improvements to existing 10-foot road. For roads that are already 30 feet in width, there will be no permanent impacts beyond this width. These roads will only be temporarily widened for construction. Therefore, the length of existing roads needing improvements is greater for temporary impacts than for permanent impacts.
9. Assumes maximum of 30 feet of travel lanes or 14 feet of improvements to existing 16-foot road.

Table C-3. Design Scenario A – Temporarily Disturbed Areas

Facilities	Notes	Units of Measurement	Montague			
			Dimensions per Unit	Number of Units	Acres	Miles
Phase 2 Collector Substation	1	Acres	0	1	0	
Battery Storage System	1	Acres	0	1	0	
Meteorological Towers (self-supporting)	2	Square feet per tower	1600	4	0.15	
Wind Turbine Tower Construction/Staging (Laydown) Areas						
Central staging and storage areas for collector lines and other equipment	3	Acres	Not applicable	3	22.07	
Staging area at each tower site	4	Square feet per tower site	158,338	81	294.4	
Power Collection System						
Underground collector lines	5	Feet of width per linear foot	24	118,815	65.46	22.5
Temporary access for overhead 34.5-kV collector line	6	Feet of width per linear foot	12	49,510	13.64	9.4
Temporary pulling sites for overhead 34.5-kV collector line	7	Not applicable	Not applicable	18	4.68	
Temporary disturbance around overhead 34.5-kV poles	8	Square feet per 2-pole location	1576	249	9.01	
Overhead 230-kV Transmission Line						
Temporary access for overhead 230-kV transmission line	6	Feet of width per linear foot	12	15,847	4.37	3.0
Temporary disturbance around overhead 230-kV transmission line structures	9	Square feet per 2-pole location	1560	34	1.22	
Access Roads						
New 20-foot turbine string roads and road to met tower(s) (temporarily widened to 100 feet)	10	Feet of width per linear foot	100	113,476	208.40	21.5
Existing road improvements, except County roads (temporarily widened to 80 feet)	11	Feet of width per linear foot	60	20,477	28.21	3.9
Existing County road improvements (temporarily widened to 60 feet, within County right-of-way)	12	Feet of width per linear foot	30	18,011	12.40	3.4
Total Temporarily Disturbed Area					**664.03 Acres**	

Table C-3. Design Scenario A – Temporarily Disturbed Areas

Facilities	Notes	Units of Measurement	Montague			
			Dimensions per Unit	Number of Units	Acres	Miles

1. Assumes contractor will permanently disturb the entire Phase 2 collector substation and battery storage system area. Therefore, no temporary impacts will occur.
2. Assumes contractor will temporarily disturb a total of up to 2,500 square feet (sq. ft.) during construction, of which 900 sq. ft. will remain permanently impacted. The 1,600 square feet represents 2,500 sq. ft. minus 900 sq. ft.
3. The three staging areas vary in acreage.
4. Assumes disturbance of 160,000 sq. ft. (225-foot radius) at each turbine location minus the permanent graveled area included in Table C-2. This disturbance area is larger than the typical staging area and represents a worst-case disturbance area.
5. Assumes width of trench plus areas for spoils and travel paths. Assumes one circuit per trench, if additional circuits are needed lines will be buried 8 feet apart for heat dissipation.
6. Temporary disturbance will be an average of 12 feet wide.
7. Pulling site dimensions and acreages vary.
8. Assumes temporary disturbance of 40 feet by 40 feet at each two-pole H-frame location minus the 24-sq.-ft. permanent disturbance.
9. Assumes temporary disturbance of 40 feet by 40 feet at each two-pole H-frame location minus the 40-sq.-ft. permanent disturbance.
10. The temporary disturbance will be equal to 100-foot total width during construction (for crane path plus access road) minus the 20-foot permanent width.
11. Assumes the 10-foot existing road will be temporarily widened to 80 feet. The temporary disturbance will be equal to 80-foot total width during construction (for crane path plus access road) minus the 20-foot permanent width.
12. Assumes the 16-foot existing road will be temporarily widened to a maximum of 60 feet within the County right-of-way. The County roads will be widened up to 60 feet for portions of the road to allow for wider turning radii and/or straightening of tight corners. The temporary disturbance will be equal to 60-foot total width during construction minus the 30-foot permanent width.

Table C-4. Design Scenario B – Permanently Disturbed Areas

Facilities	Notes	Units of Measurement	Montague			
			Dimensions per Unit	Number of Units	Acres	Miles
Wind Turbine Pads/Towers	1	Square feet per tower	1,809	56	2.33	
Phase 2 Collector Substation	2	Acres	3.99	1	3.99	
Battery Storage System	3	Acres	6.43	1	6.43	
O&M Building	4	Acres	3	1	3	
Meteorological Towers (self-supporting)	5	Square feet per tower	900	4	0.08	
Overhead 34.5-kV Collector Line Structures	6	Square feet per 2-pole location	24	249	0.14	
Overhead 230-kV Transmission Line Structures	6	Square feet per 2-pole location	40	34	0.03	
Access Roads and Turnarounds						
New 20-foot-wide turbine and met tower access roads	7	Feet of width per linear foot	20	106,429	48.87	20.2
Improved existing roads to 20 feet (except County roads)	8	Feet of width per linear foot	10	23,076	5.30	4.4
Improved existing County roads to 30 feet (within County right-of-way)	9	Feet of width per linear foot	14	18,011	5.79	3.4
Total Permanently Disturbed Area					**75.95 acres**	

1. Includes graveled area of pad, transformer, and disturbed area for each tower, excluding access road. The dimensions are based on a circular area of disturbance with a radius of 24 feet (includes a turbine tower with a radius of up to 8 feet and surrounding gravel area with a radius of up to 16 feet). These dimensions represent the maximum potential graveled area for the range of turbine types under consideration.
2. Includes the Phase 2 collector substation and surrounding graveled area and fence (467 feet by 600 feet). No temporary disturbance will occur outside the fenced area.
3. Includes the area within the fenced perimeter of the battery storage system (470 feet by 600 feet).
4. Includes the O&M building and surrounding graveled parking area and fence (467 feet by 280 feet).
5. Includes met tower foundation measuring approximately 28-feet-wide and surrounding graveled area.
6. Assumes two-pole H-frame structures.
7. Assumes 20-foot-wide road.
8. Assumes maximum of 20 feet of travel lanes or 10 feet of improvements to existing 10-foot road. For roads that are already 30 feet in width, there will be no permanent impacts beyond this width. These roads will only be temporarily widened for construction. Therefore, the length of existing roads needing improvements is greater for temporary impacts than for permanent impacts.
9. Assumes maximum of 30 feet of travel lanes or 14 feet of improvements to existing 16-foot road.

Table C-5. Design Scenario B – Temporarily Disturbed Areas

Facilities	Notes	Units of Measurement	Montague			
			Dimensions per Unit	Number of Units	Acres	Miles
Phase 2 Collector Substation	1	Acres	0	1	0	
Battery Storage System	1	Acres	0	1	0	
Meteorological Towers (self-supporting)	2	Square feet per tower	1600	4	0.15	
Wind Turbine Tower Construction/Staging (Laydown) Areas						
Central staging and storage areas for collector lines and other equipment	3	Acres	Not applicable	3	22.07	
Staging area at each tower site	4	Square feet per tower site	158,338	56	203.6	
Power Collection System						
Underground collector lines	5	Feet of width per linear foot	24	119,140	65.64	22.6
Temporary access for overhead 34.5-kV collector line	6	Feet of width per linear foot	12	49,510	13.64	9.4
Temporary pulling sites for overhead 34.5-kV collector line	7	Not applicable	Not applicable	18	4.68	
Temporary disturbance around overhead 34.5-kV poles	8	Square feet per 2-pole location	1576	249	9.01	
Overhead 230-kV Transmission Line						
Temporary Access for overhead 230-kV transmission line	6	Feet of width per linear foot	12	15,847	4.37	3.0
Temporary disturbance around overhead 230-kV transmission line structures	9	Square feet per 2-pole location	1560	34	1.22	
Access Roads						
New 20-foot turbine string roads and road to met tower(s) (temporarily widened to 100 feet)	10	Feet of width per linear foot	100	113,476	208.40	21.5
Existing road improvements, except County roads (temporarily widened to 80 feet)	11	Feet of width per linear foot	60	23,076	31.79	4.4
Existing County road improvements (temporarily widened to 60 feet, within County right-of-way)	12	Feet of width per linear foot	30	18,011	12.40	3.4
Total Temporarily Disturbed Area					**576.92 acres**	

Table C-5. Design Scenario B – Temporarily Disturbed Areas

Facilities	Notes	Units of Measurement	Montague			
			Dimensions per Unit	Number of Units	Acres	Miles

1. Assumes contractor will permanently disturb the entire Phase 2 collector substation and battery storage system area. Therefore, no temporary impacts will occur.
2. Assumes contractor will temporarily disturb a total of up to 2,500 square feet (sq. ft.) during construction, of which 900 sq. ft. will remain permanently impacted. The 1,600 square feet represents 2,500 sq. ft. minus 900 sq. ft.
3. The three staging areas vary in acreage.
4. Assumes disturbance of 160,000 sq. ft. (225-foot radius) at each turbine location minus the permanent graveled area included in Table C-2. This disturbance area is larger than the typical staging area and represents a worst-case disturbance area.
5. Assumes width of trench plus areas for spoils and travel paths. Assumes one circuit per trench, if additional circuits are needed lines will be buried 8 feet apart for heat dissipation.
6. Temporary disturbance will be an average of 12 feet wide.
7. Pulling site dimensions and acreages vary.
8. Assumes temporary disturbance of 40 feet by 40 feet at each two-pole H-frame location minus the 24-sq.-ft. permanent disturbance.
9. Assumes temporary disturbance of 40 feet by 40 feet at each two-pole H-frame location minus the 40-sq.-ft. permanent disturbance.
10. The temporary disturbance will be equal to 100-foot total width during construction (for crane path plus access road) minus the 20-foot permanent width.
11. Assumes the 10-foot existing road will be temporarily widened to 80 feet. The temporary disturbance will be equal to 80-foot total width during construction (for crane path plus access road) minus the 20-foot permanent width.
12. Assumes the 16-foot existing road will be temporarily widened to a maximum of 60 feet within the County right-of-way. The County roads will be widened up to 60 feet for portions of the road to allow for wider turning radii and/or straightening of tight corners. The temporary disturbance will be equal to 60-foot total width during construction minus the 30-foot permanent width.

Table C-6. Design Scenario C – Permanently Disturbed Areas

Facilities	Notes	Units of Measurement	Montague			
			Dimensions per Unit	Number of Units	Acres	Miles
Wind Turbine Pads/Towers	1	Square feet per tower	1,809	40	1.66	
Phase 2 Collector Substation	2	Acres	3.99	1	3.99	
Battery Storage System	3	Acres	6.43	1	6.43	
O&M Building	4	Acres	3	1	3	
Meteorological Towers (self-supporting)	5	Square feet per tower	900	3	0.06	
Overhead 34.5-kV Collector Line Structures	6	Square feet per 2-pole location	24	262	0.14	
Overhead 230-kV Transmission Line Structures	6	Square feet per 2-pole location	40	34	0.03	
Access Roads and Turnarounds						
New 20-foot-wide turbine and met tower access roads	7	Feet of width per linear foot	20	89,445	41.07	16.9
Improved existing roads to 20 feet (except County roads)	8	Feet of width per linear foot	10	23,076	5.30	4.4
Improved existing County roads to 30 feet (within County right-of-way)	9	Feet of width per linear foot	14	18,011	5.79	3.4
Solar Array	10	Acres	478.69	1	478.69	
Total Permanently Disturbed Area						**546.16 acres**

1. Includes graveled area of pad, transformer, and disturbed area for each tower, excluding access road. The dimensions are based on a circular area of disturbance with a radius of 24 feet (includes a turbine tower with a radius of up to 8 feet and surrounding gravel area with a radius of up to 16 feet). These dimensions represent the maximum potential graveled area for the range of turbine types under consideration.
2. Includes the Phase 2 collector substation and surrounding graveled area and fence (467 feet by 600 feet). No temporary disturbance will occur outside the fenced area.
3. Includes the area within the fenced perimeter of the battery storage system (470 feet by 600 feet).
4. Includes the O&M building and surrounding graveled parking area and fence (467 feet by 280 feet).
5. Includes met tower foundation measuring approximately 28-feet-wide and surrounding graveled area.
6. Assumes two-pole H-frame structures.
7. Assumes 20-foot-wide road.
8. Assumes maximum of 20 feet of travel lanes or 10 feet of improvements to existing 10-foot road. For roads that are already 30 feet in width, there will be no permanent impacts beyond this width. These roads will only be temporarily widened for construction. Therefore, the length of existing roads needing improvements is greater for temporary impacts than for permanent impacts.
9. Assumes maximum of 30 feet of travel lanes or 14 feet of improvements to existing 16-foot road.
10. Includes the area within the fenced perimeter of the solar array.

Table C-7. Design Scenario C – Temporarily Disturbed Areas

Facilities	Notes	Units of Measurement	Montague			
			Dimensions per Unit	Number of Units	Acres	Miles
Phase 2 Collector Substation	1	Acres	0	1	0	
Battery Storage System	1	Acres	0	1	0	
Meteorological Towers (self-supporting)	2	Square feet per tower	1600	3	0.11	
Wind Turbine Tower Construction/Staging (Laydown) Areas						
Central staging and storage areas for collector lines and other equipment	3	Acres	Not applicable	3	22.07	
Staging area at each tower site	4	Square feet per tower site	158,338	40	145.4	
Power Collection System						
Underground collector line	5	Feet of width per linear foot	24	96,776	53.32	18.3
Temporary access for overhead 34.5-kV Collector Line	6	Feet of width per linear foot	12	51,112	14.08	9.7
Temporary Pulling Sites for overhead 34.5-kV Collector Line	7	Not applicable	Not applicable	21	5.64	
Temporary disturbance around overhead 34.5-kV poles	8	Square feet per 2-pole location	1576	262	9.48	
Overhead 230-kV Transmission Line						
Temporary Access for Overhead 230-kV Transmission Line	6	Feet of width per linear foot	12	15,847	4.37	3.0
Temporary Disturbance Around Overhead 230-kV Transmission Line Structures	9	Square feet per 2-pole location	1560	34	1.22	
Access Roads						
New 20-foot turbine string roads and road to met tower(s) (temporarily widened to 100 feet)	10	Feet of width per linear foot	100	89,445	164.27	16.9

Table C-7. Design Scenario C – Temporarily Disturbed Areas

Facilities	Notes	Units of Measurement	Montague			
			Dimensions per Unit	Number of Units	Acres	Miles
Existing road improvements, except County roads (temporarily widened to 80 feet)	11	Feet of width per linear foot	60	23,076	31.79	4.4
Existing County road improvements (temporarily widened to 60 feet, within County right-of-way)	12	Feet of width per linear foot	30	18,011	12.40	3.4
Solar Array Fencing	13	Feet of width per linear foot	6	25730.54	1.77	4.9
Total Temporarily Disturbed Area					**465.91 acres**	

1. Assumes contractor will permanently disturb the entire Phase 2 collector substation and battery storage system area. Therefore, no temporary impacts will occur.
2. Assumes contractor will temporarily disturb a total of up to 2,500 square feet (sq. ft.) during construction, of which 900 sq. ft. will remain permanently impacted. The 1,600 square feet represents 2,500 sq. ft. minus 900 sq. ft.
3. The three staging areas vary in acreage.
4. Assumes disturbance of 160,000 sq. ft. (225-foot radius) at each turbine location minus the permanent graveled area included in Table C-2. This disturbance area is larger than the typical staging area and represents a worst-case disturbance area.
5. Assumes width of trench plus areas for spoils and travel paths. Assumes one circuit per trench, if additional circuits are needed lines will be buried 8 feet apart for heat dissipation.
6. Temporary disturbance will be an average of 12 feet wide.
7. Pulling site dimensions and acreages vary.
8. Assumes temporary disturbance of 40 feet by 40 feet at each two-pole H-frame location minus the 24-sq.-ft. permanent disturbance.
9. Assumes temporary disturbance of 40 feet by 40 feet at each two-pole H-frame location minus the 40-sq.-ft. permanent disturbance.
10. The temporary disturbance will be equal to 100-foot total width during construction (for crane path plus access road) minus the 20-foot permanent width.
11. Assumes the 10-foot existing road will be temporarily widened to 80 feet. The temporary disturbance will be equal to 80-foot total width during construction (for crane path plus access road) minus the 20-foot permanent width.
12. Assumes the 16-foot existing road will be temporarily widened to a maximum of 60 feet within the County right-of-way. The County roads will be widened up to 60 feet for portions of the road to allow for wider turning radii and/or straightening of tight corners. The temporary disturbance will be equal to 60-foot total width during construction minus the 30-foot permanent width.
13. Temporary disturbance will be an average of 6 feet wide; however, half of the temporary disturbance will overlap with the permanent disturbance already counted for the solar facility itself, so the total shown above is divided by 2.

Table C-8. Summary of Maximum Disturbance Scenario by Exhibit

Exhibit with Impact Analysis	Summary of Maximum Disturbance Scenario
C	Same as Exhibit P.
I	Same as Exhibit P.
J	Design Scenario A (maximum wind turbine layout); maximum number of potential impacts.
K	Same as Exhibit P.
L	Design Scenario A (maximum wind turbine layout); more visible from within the 10-mile analysis area based on Zone of Visual Impact (ZVI) analysis presented in Exhibit R.
P	Design Scenario A (maximum wind turbine layout) and Design Scenario C (wind turbine and solar array layout), moved into highest-quality habitat; highest level of temporary and permanent land impacts and highest level of impacts to highest-quality habitat.
Q	Design Scenario A (maximum wind turbine layout) and Design Scenario C (wind turbine and solar array layout), moved into highest-quality habitat; highest level of temporary and permanent land impacts and highest level of impacts to highest-quality habitat; highest number of Facility components in proximity to threatened and endangered species.
R	Design Scenario A (maximum wind turbine layout); more visible from within the 10-mile analysis area based on ZVI analysis.
S	Same as Exhibit P.
X	Design Scenario A (maximum wind turbine layout); highest predicted noise level.

Figures

Figure C-1
Facility Site Vicinity Map
Montague Wind Power Facility

Legend

- Approved Site Boundary
- Approved Micrositing Corridor
- Proposed Expanded Site Boundary
- Proposed Expanded Micrositing Corridor

Basemap Features

- Interstate/Highway
- State Boundary
- County Boundary
- City/Town

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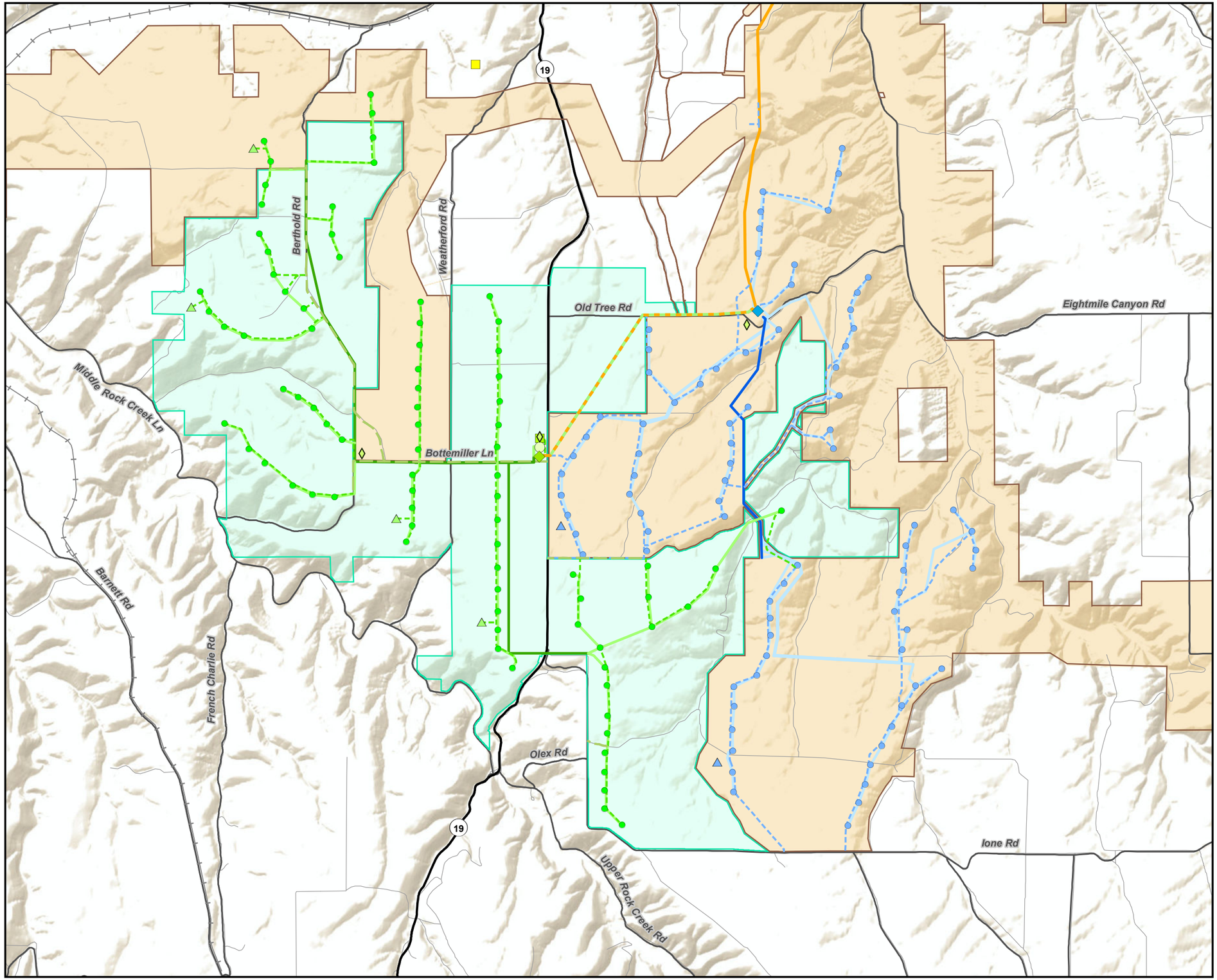
Basemap Source: ESRI USA Topo Maps

Figure C-2
Phase 2 Design Scenario A: Facility Location and Layout
Montague Wind Power Facility



Legend

- Approved Site Boundary
- Approved Micrositing Corridor
- Proposed Expanded Site Boundary
- Proposed Expanded Micrositing Corridor
- Existing Shared LJIIB O&M Building

Phase 2 (Features within the Approved and Proposed Expanded Site Boundary and Micrositing Corridor)

- Proposed Turbine
- Meteorological Tower
- Phase 2 Collector Substation
- Battery Storage System
- O&M Building
- Temporary Laydown Area
- Modified 230-kV Transmission Line Route
- 34.5-kV Overhead Collector Line
- 34.5-kV Underground Collector Line
- New Access Road
- Facility Use of Existing Road

Phase 1 (Features Constructed within the Approved Site Boundary and Micrositing Corridor)

- Turbine
- Meteorological Tower
- Phase 1 Substation
- Approved 230-kV Transmission Line
- 34.5-kV Overhead Collector Line
- 34.5-kV Underground Collector Line
- Access Road

Basemap Features

- Interstate/Highway
- Public Road
- Other Road
- Major Railroad Line

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Basemap Source: ESRI World Terrain Base

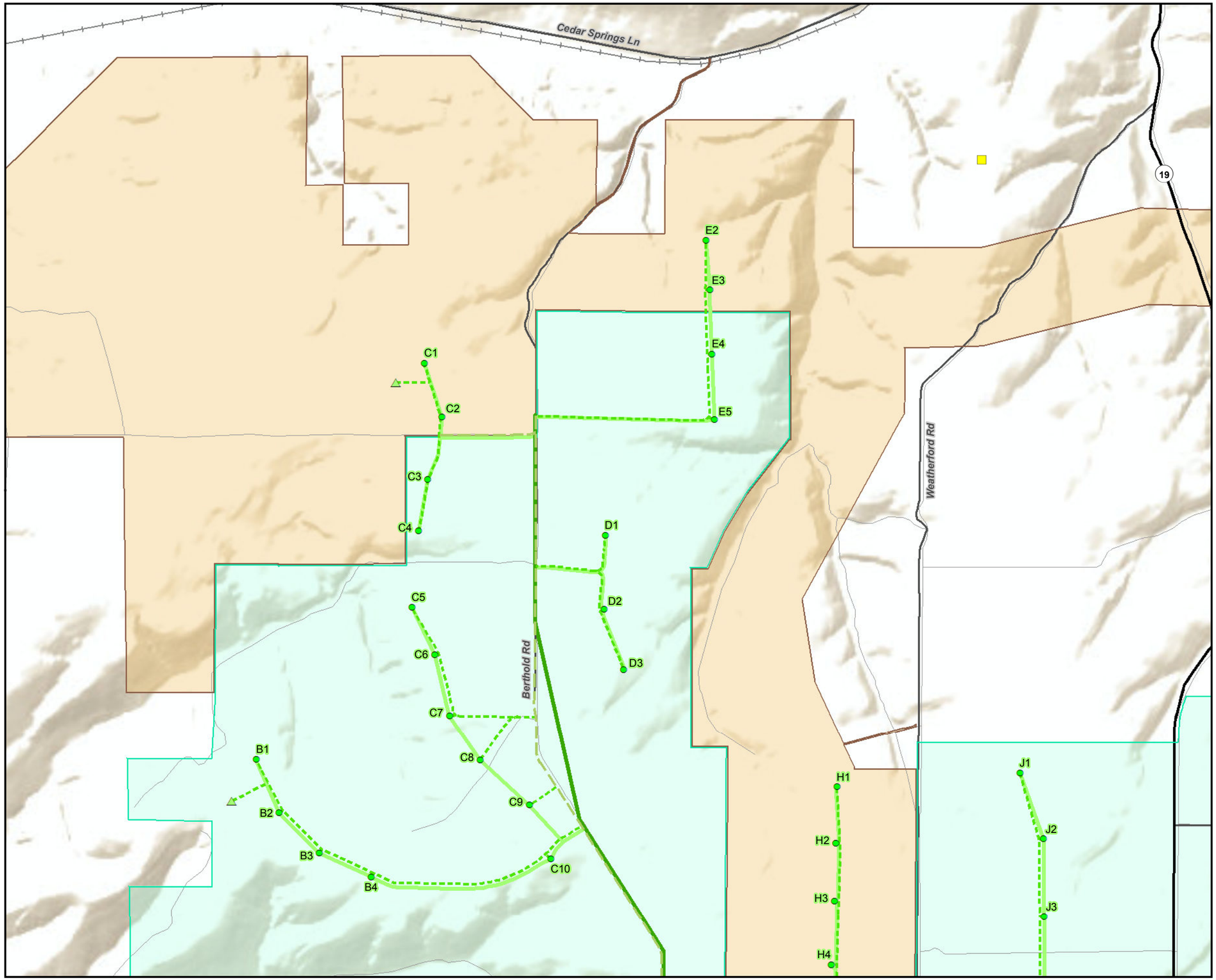


Figure C-3.1
Phase 2 Design Scenario A: Detailed View
Montague Wind Power Facility

Legend

- Approved Site Boundary
- Approved Micrositing Corridor
- Proposed Expanded Site Boundary
- Proposed Expanded Micrositing Corridor
- Existing Shared LJIIB O&M Building

Phase 2 (Features within the Approved and Proposed Expanded Site Boundary and Micrositing Corridor)

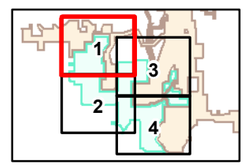
- Proposed Turbine
- Meteorological Tower
- Phase 2 Collector Substation
- Battery Storage System
- O&M Building
- Temporary Laydown Area
- Modified 230-kV Transmission Line Route
- 34.5-kV Overhead Collector Line
- 34.5-kV Underground Collector Line
- New Access Road
- Facility Use of Existing Road

Phase 1 (Features Constructed within the Approved Site Boundary and Micrositing Corridor)

- Turbine
- Meteorological Tower
- Phase 1 Substation
- Approved 230-kV Transmission Line
- 34.5-kV Overhead Collector Line
- 34.5-kV Underground Collector Line
- Access Road

Basemap Features

- Interstate/Highway
- Public Road
- Other Road
- Major Railroad Line



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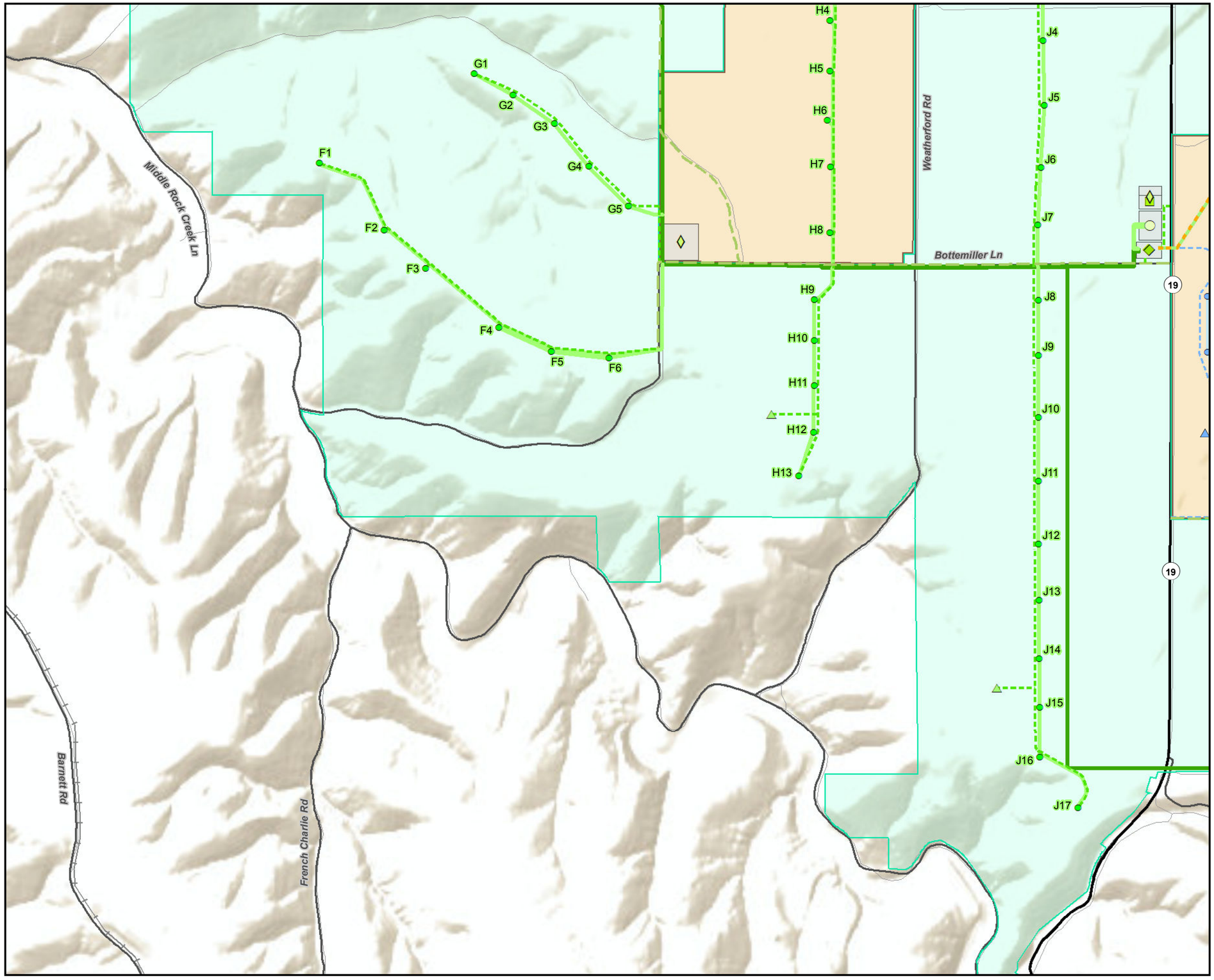
Basemap Source: ESRI World Terrain Base

Figure C-3.2
Phase 2 Design Scenario A: Detailed View
Montague Wind Power Facility



Legend

- Approved Site Boundary
- Approved Micrositing Corridor
- Proposed Expanded Site Boundary
- Proposed Expanded Micrositing Corridor
- Existing Shared LJIIB O&M Building

Phase 2 (Features within the Approved and Proposed Expanded Site Boundary and Micrositing Corridor)

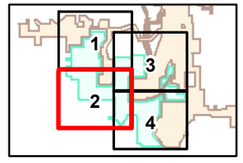
- Proposed Turbine
- Meteorological Tower
- Phase 2 Collector Substation
- Battery Storage System
- O&M Building
- Temporary Laydown Area
- Modified 230-kV Transmission Line Route
- 34.5-kV Overhead Collector Line
- 34.5-kV Underground Collector Line
- New Access Road
- Facility Use of Existing Road

Phase 1 (Features Constructed within the Approved Site Boundary and Micrositing Corridor)

- Turbine
- Meteorological Tower
- Phase 1 Substation
- Approved 230-kV Transmission Line
- 34.5-kV Overhead Collector Line
- 34.5-kV Underground Collector Line
- Access Road

Basemap Features

- Interstate/Highway
- Public Road
- Other Road
- Major Railroad Line



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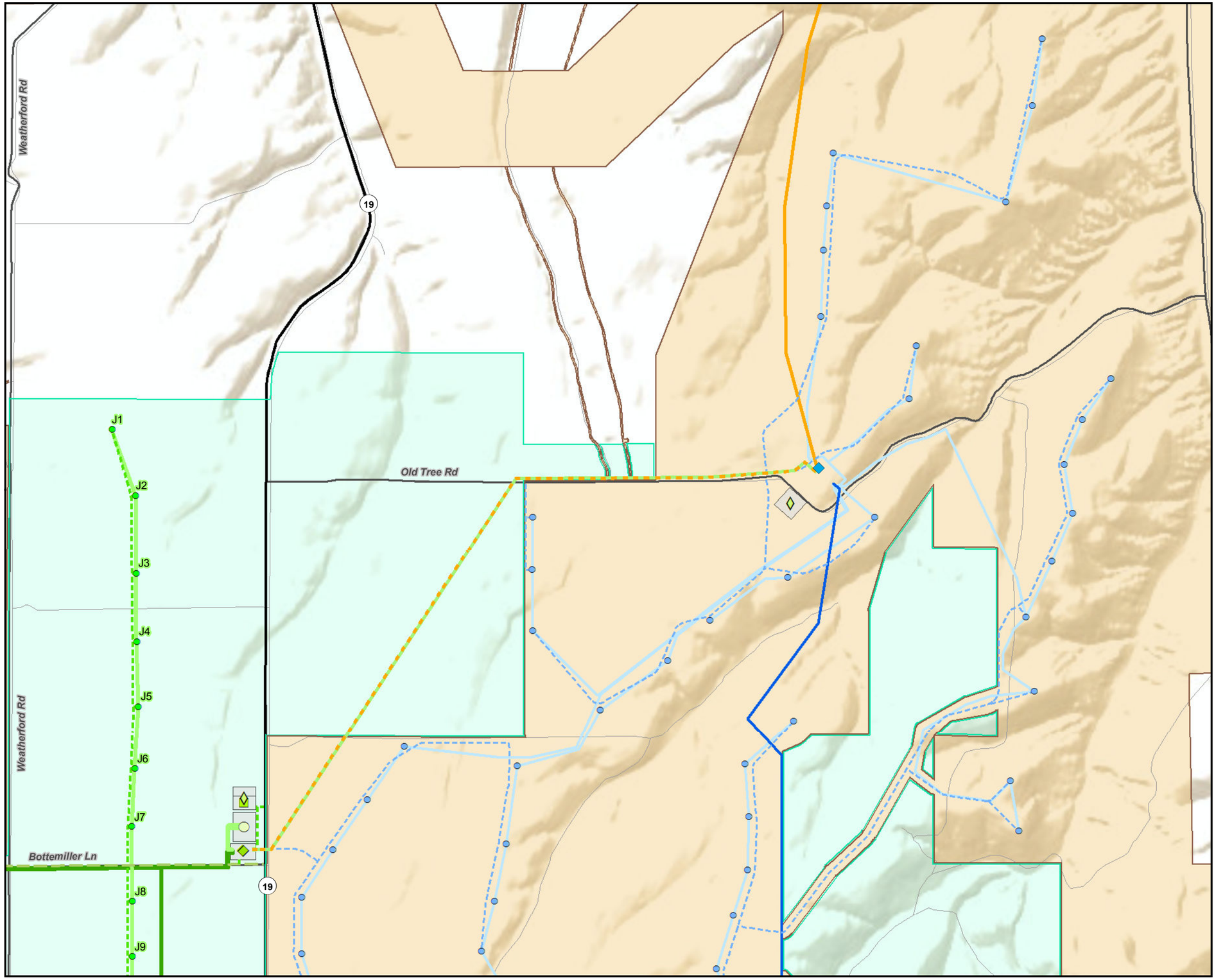
Basemap Source: ESRI World Terrain Base

Figure C-3.3
Phase 2 Design Scenario A: Detailed View
Montague Wind Power Facility



Legend

- Approved Site Boundary
- Approved Micrositing Corridor
- Proposed Expanded Site Boundary
- Proposed Expanded Micrositing Corridor
- Existing Shared LJIIB O&M Building

Phase 2 (Features within the Approved and Proposed Expanded Site Boundary and Micrositing Corridor)

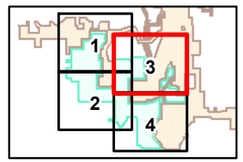
- Proposed Turbine
- Meteorological Tower
- Phase 2 Collector Substation
- Battery Storage System
- O&M Building
- Temporary Laydown Area
- Modified 230-kV Transmission Line Route
- 34.5-kV Overhead Collector Line
- 34.5-kV Underground Collector Line
- New Access Road
- Facility Use of Existing Road

Phase 1 (Features Constructed within the Approved Site Boundary and Micrositing Corridor)

- Turbine
- Meteorological Tower
- Phase 1 Substation
- Approved 230-kV Transmission Line
- 34.5-kV Overhead Collector Line
- 34.5-kV Underground Collector Line
- Access Road

Basemap Features

- Interstate/Highway
- Public Road
- Other Road
- Major Railroad Line



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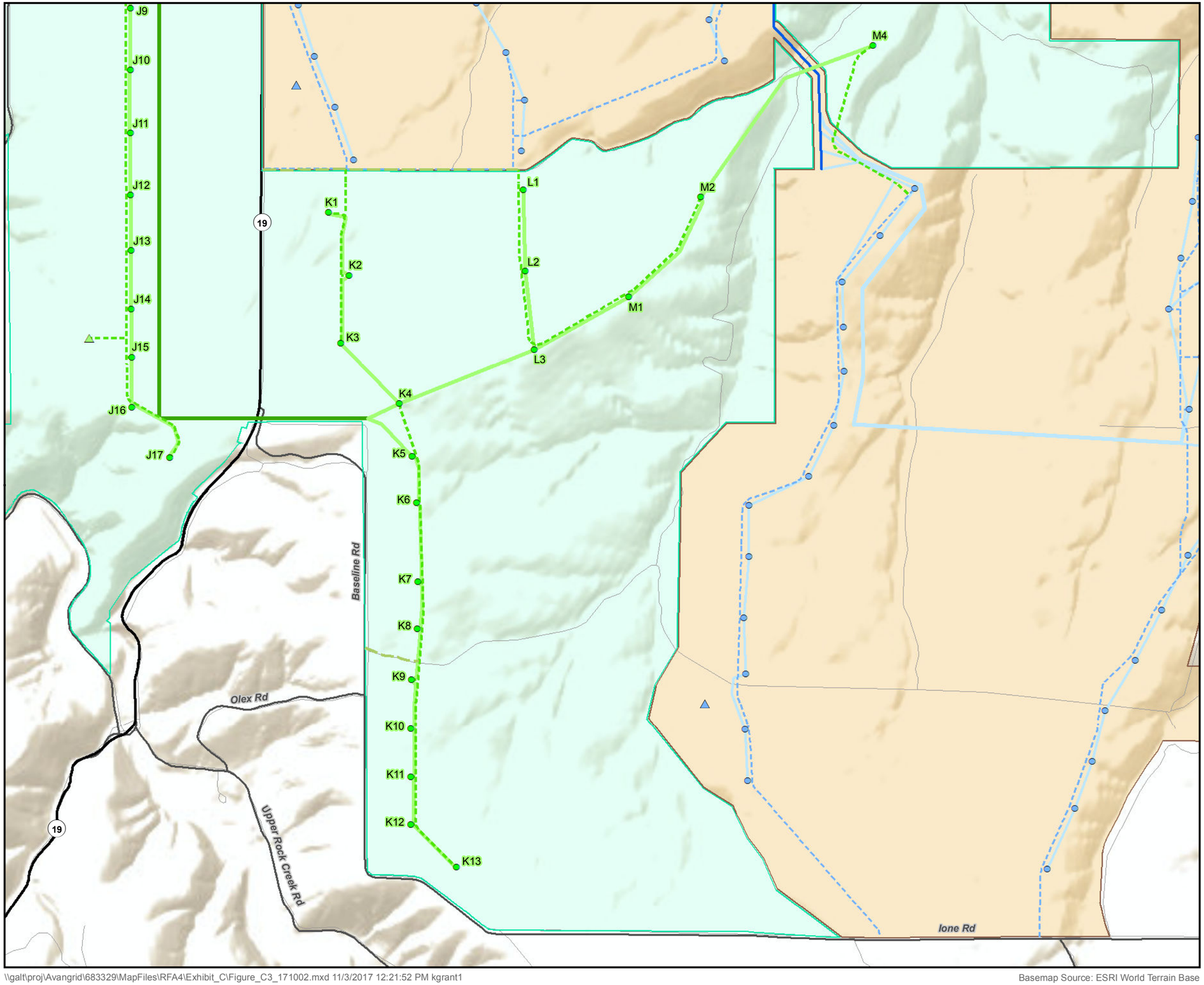
Basemap Source: ESRI World Terrain Base

Figure C-3.4
Phase 2 Design Scenario A: Detailed View
Montague Wind Power Facility



Legend

- Approved Site Boundary
- Approved Micrositing Corridor
- Proposed Expanded Site Boundary
- Proposed Expanded Micrositing Corridor
- Existing Shared LJIIB O&M Building

Phase 2 (Features within the Approved and Proposed Expanded Site Boundary and Micrositing Corridor)

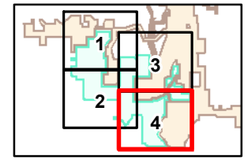
- Proposed Turbine
- Meteorological Tower
- Phase 2 Collector Substation
- Battery Storage System
- O&M Building
- Temporary Laydown Area
- Modified 230-kV Transmission Line Route
- 34.5-kV Overhead Collector Line
- 34.5-kV Underground Collector Line
- New Access Road
- Facility Use of Existing Road

Phase 1 (Features Constructed within the Approved Site Boundary and Micrositing Corridor)

- Turbine
- Meteorological Tower
- Phase 1 Substation
- Approved 230-kV Transmission Line
- 34.5-kV Overhead Collector Line
- 34.5-kV Underground Collector Line
- Access Road

Basemap Features

- Interstate/Highway
- Public Road
- Other Road
- Major Railroad Line



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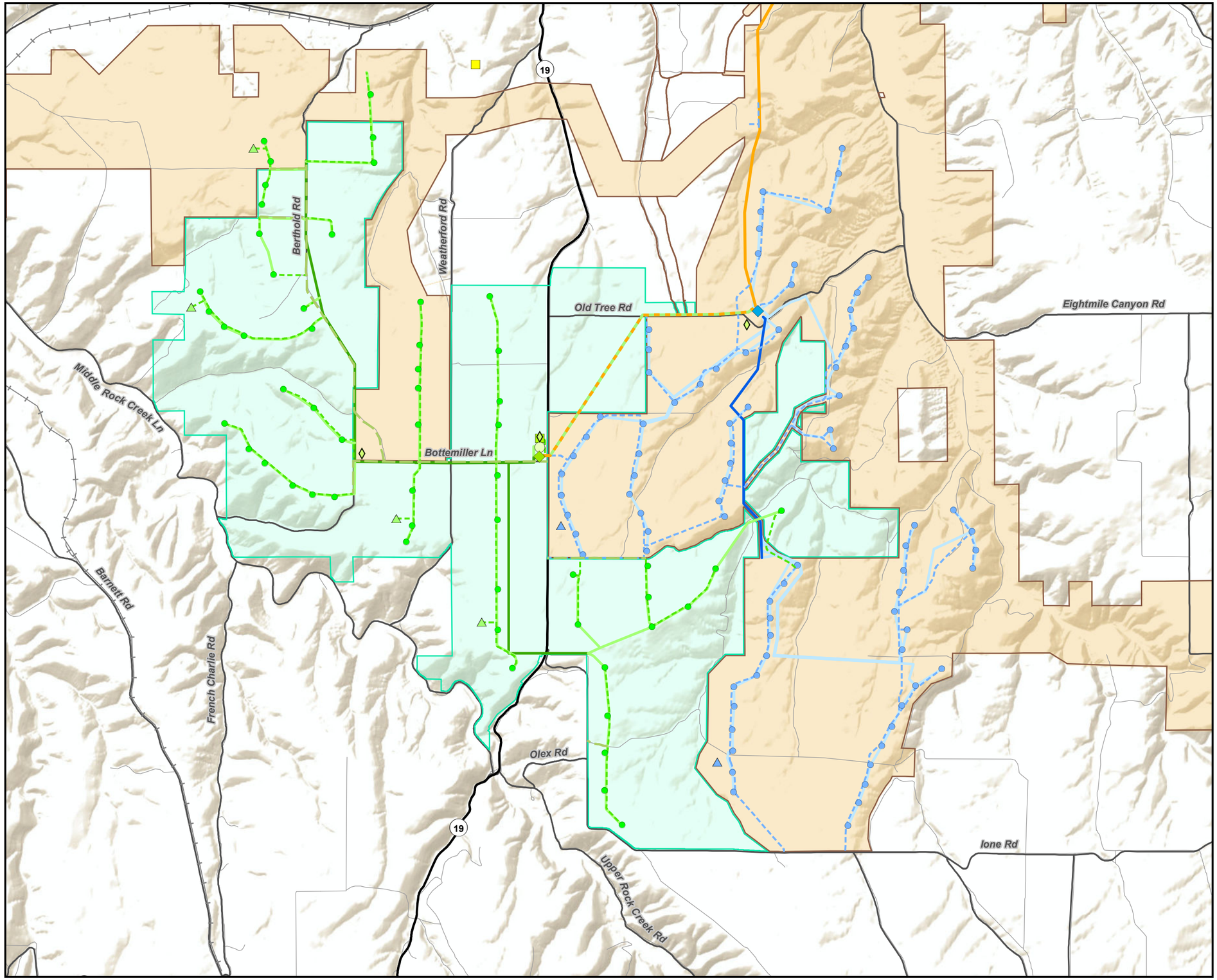
Basemap Source: ESRI World Terrain Base

Figure C-4
Phase 2 Design Scenario B: Facility Location and Layout
Montague Wind Power Facility



Legend

- Approved Site Boundary
- Approved Micrositing Corridor
- Proposed Expanded Site Boundary
- Proposed Expanded Micrositing Corridor
- Existing Shared LJIIB O&M Building

Phase 2 (Features within the Approved and Proposed Expanded Site Boundary and Micrositing Corridor)

- Proposed Turbine
- Meteorological Tower
- Phase 2 Collector Substation
- Battery Storage System
- O&M Building
- Temporary Laydown Area
- Modified 230-kV Transmission Line Route
- 34.5-kV Overhead Collector Line
- 34.5-kV Underground Collector Line
- New Access Road
- Facility Use of Existing Road

Phase 1 (Features Constructed within the Approved Site Boundary and Micrositing Corridor)

- Turbine
- Meteorological Tower
- Phase 1 Substation
- Approved 230-kV Transmission Line
- 34.5-kV Overhead Collector Line
- 34.5-kV Underground Collector Line
- Access Road

Basemap Features

- Interstate/Highway
- Public Road
- Other Road
- Major Railroad Line

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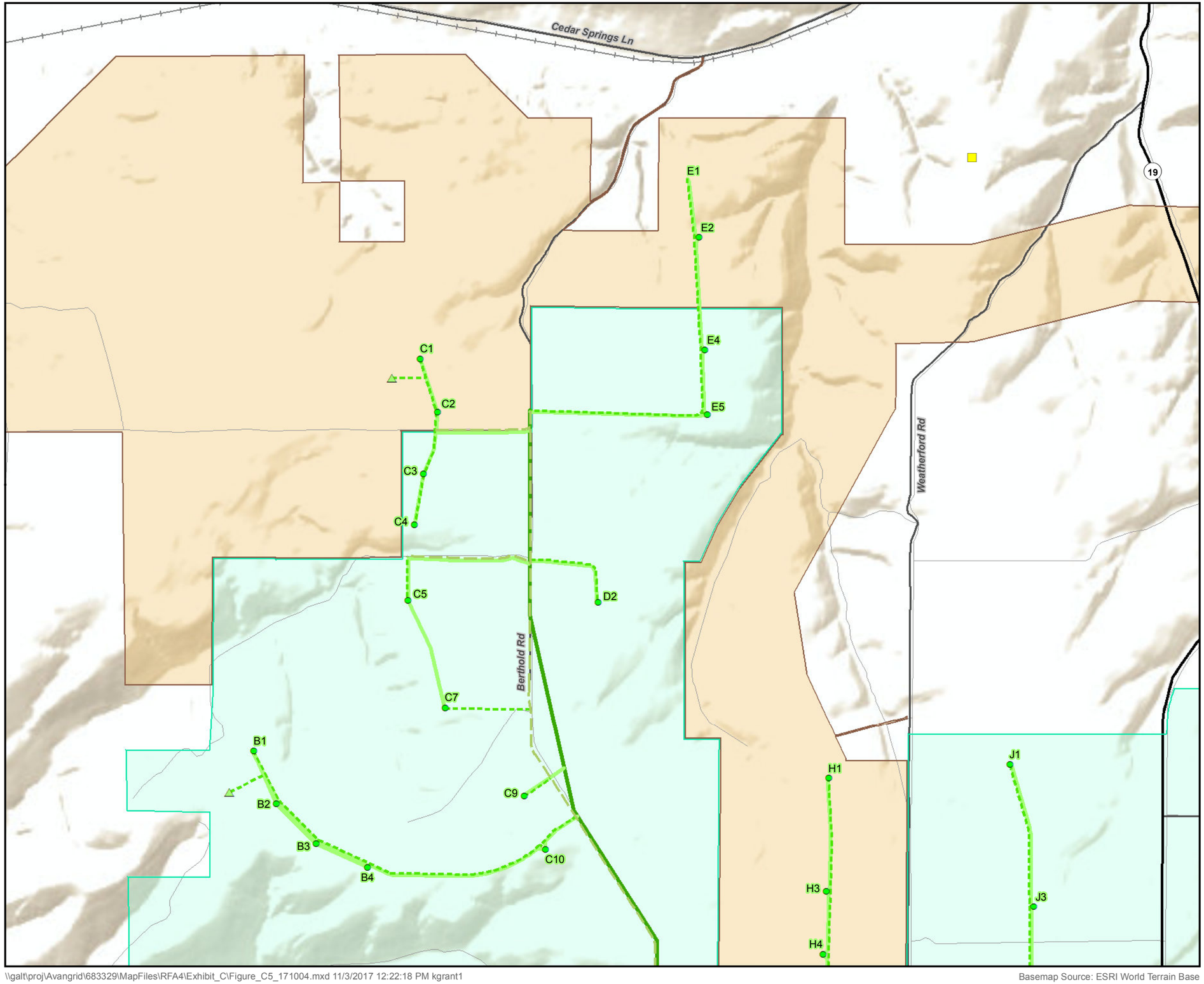
Basemap Source: ESRI World Terrain Base

Figure C-5.1
Phase 2 Design Scenario B: Detailed View
Montague Wind Power Facility



Legend

- Approved Site Boundary
- Approved Micrositing Corridor
- Proposed Expanded Site Boundary
- Proposed Expanded Micrositing Corridor
- Existing Shared LJIIB O&M Building

Phase 2 (Features within the Approved and Proposed Expanded Site Boundary and Micrositing Corridor)

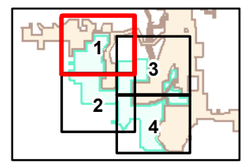
- Proposed Turbine
- Meteorological Tower
- Phase 2 Collector Substation
- Battery Storage System
- O&M Building
- Temporary Laydown Area
- Modified 230-kV Transmission Line Route
- 34.5-kV Overhead Collector Line
- 34.5-kV Underground Collector Line
- New Access Road
- Facility Use of Existing Road

Phase 1 (Features Constructed within the Approved Site Boundary and Micrositing Corridor)

- Turbine
- Meteorological Tower
- Phase 1 Substation
- Approved 230-kV Transmission Line
- 34.5-kV Overhead Collector Line
- 34.5-kV Underground Collector Line
- Access Road

Basemap Features

- Interstate/Highway
- Public Road
- Other Road
- Major Railroad Line



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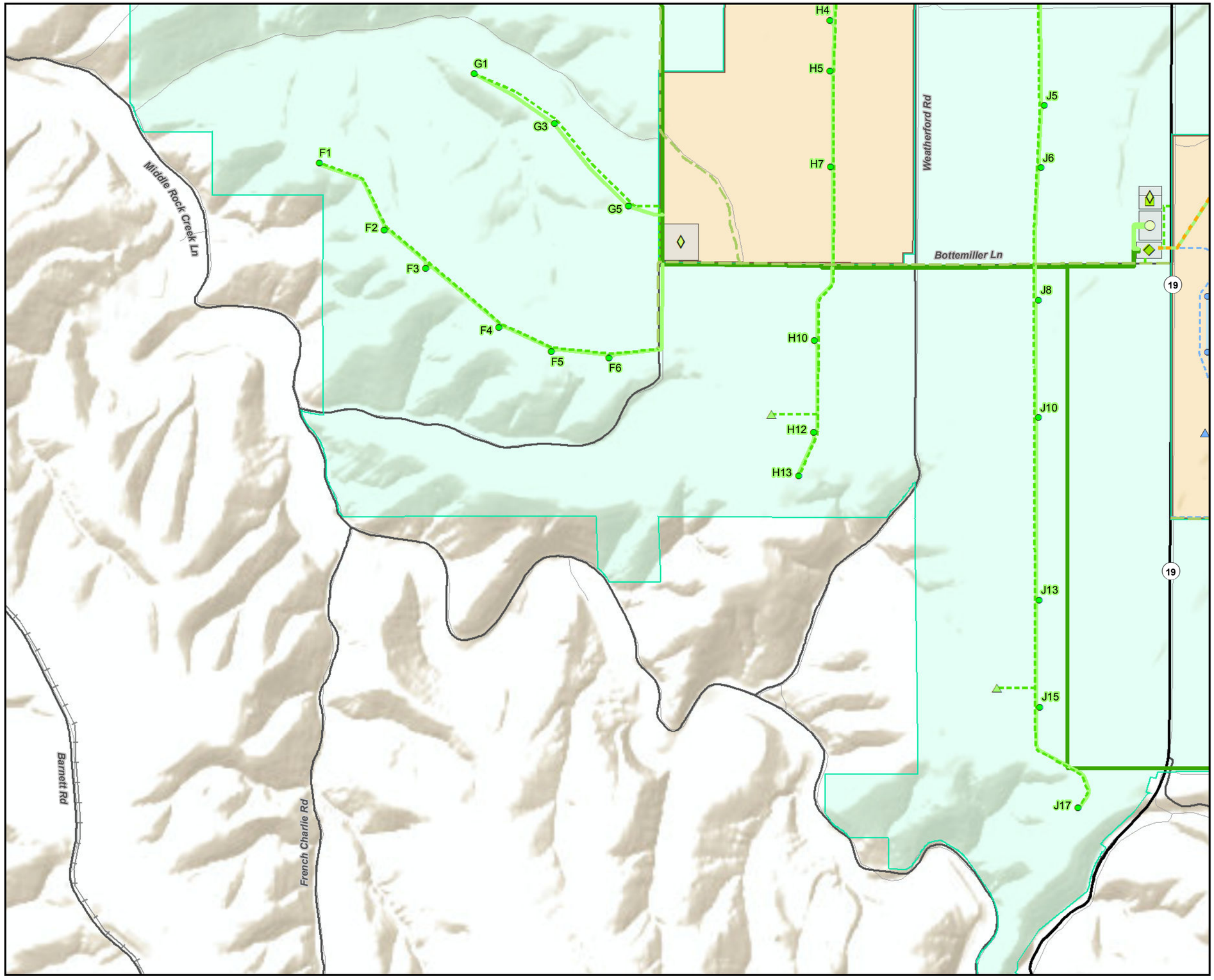
Basemap Source: ESRI World Terrain Base

Figure C-5.2
Phase 2 Design Scenario B: Detailed View
Montague Wind Power Facility



Legend

- Approved Site Boundary
- Approved Micrositing Corridor
- Proposed Expanded Site Boundary
- Proposed Expanded Micrositing Corridor
- Existing Shared LJIIB O&M Building

Phase 2 (Features within the Approved and Proposed Expanded Site Boundary and Micrositing Corridor)

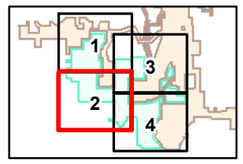
- Proposed Turbine
- Meteorological Tower
- Phase 2 Collector Substation
- Battery Storage System
- O&M Building
- Temporary Laydown Area
- Modified 230-kV Transmission Line Route
- 34.5-kV Overhead Collector Line
- 34.5-kV Underground Collector Line
- New Access Road
- Facility Use of Existing Road

Phase 1 (Features Constructed within the Approved Site Boundary and Micrositing Corridor)

- Turbine
- Meteorological Tower
- Phase 1 Substation
- Approved 230-kV Transmission Line
- 34.5-kV Overhead Collector Line
- 34.5-kV Underground Collector Line
- Access Road

Basemap Features

- Interstate/Highway
- Public Road
- Other Road
- Major Railroad Line



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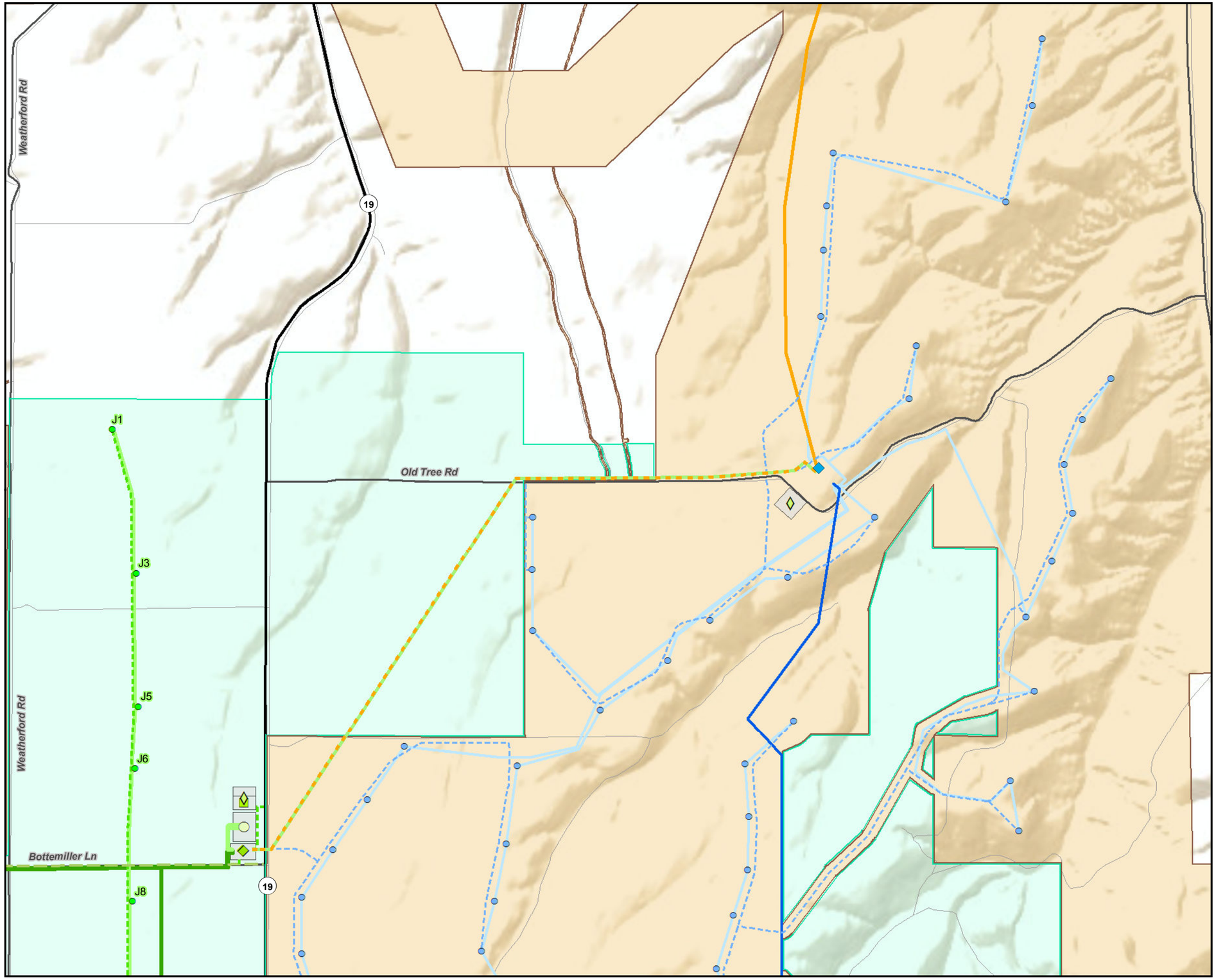
Basemap Source: ESRI World Terrain Base

Figure C-5.3
Phase 2 Design Scenario B: Detailed View
Montague Wind Power Facility



Legend

- Approved Site Boundary
- Approved Micrositing Corridor
- Proposed Expanded Site Boundary
- Proposed Expanded Micrositing Corridor
- Existing Shared LJIIB O&M Building

Phase 2 (Features within the Approved and Proposed Expanded Site Boundary and Micrositing Corridor)

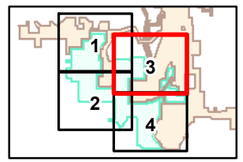
- Proposed Turbine
- Meteorological Tower
- Phase 2 Collector Substation
- Battery Storage System
- O&M Building
- Temporary Laydown Area
- Modified 230-kV Transmission Line Route
- 34.5-kV Overhead Collector Line
- 34.5-kV Underground Collector Line
- New Access Road
- Facility Use of Existing Road

Phase 1 (Features Constructed within the Approved Site Boundary and Micrositing Corridor)

- Turbine
- Meteorological Tower
- Phase 1 Substation
- Approved 230-kV Transmission Line
- 34.5-kV Overhead Collector Line
- 34.5-kV Underground Collector Line
- Access Road

Basemap Features

- Interstate/Highway
- Public Road
- Other Road
- Major Railroad Line



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Basemap Source: ESRI World Terrain Base

Figure C-5.4
Phase 2 Design Scenario B: Detailed View
Montague Wind Power Facility

J10
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K11
K13
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L3
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Baseline Rd
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Legend

- Approved Site Boundary
- Approved Micrositing Corridor
- Proposed Expanded Site Boundary
- Proposed Expanded Micrositing Corridor
- Existing Shared LJIIB O&M Building

Phase 2 (Features within the Approved and Proposed Expanded Site Boundary and Micrositing Corridor)

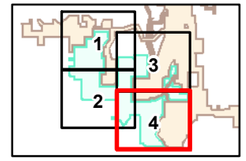
- Proposed Turbine
- Meteorological Tower
- Phase 2 Collector Substation
- Battery Storage System
- O&M Building
- Temporary Laydown Area
- Modified 230-kV Transmission Line Route
- 34.5-kV Overhead Collector Line
- 34.5-kV Underground Collector Line
- New Access Road
- Facility Use of Existing Road

Phase 1 (Features Constructed within the Approved Site Boundary and Micrositing Corridor)

- Turbine
- Meteorological Tower
- Phase 1 Substation
- Approved 230-kV Transmission Line
- 34.5-kV Overhead Collector Line
- 34.5-kV Underground Collector Line
- Access Road

Basemap Features

- Interstate/Highway
- Public Road
- Other Road
- Major Railroad Line



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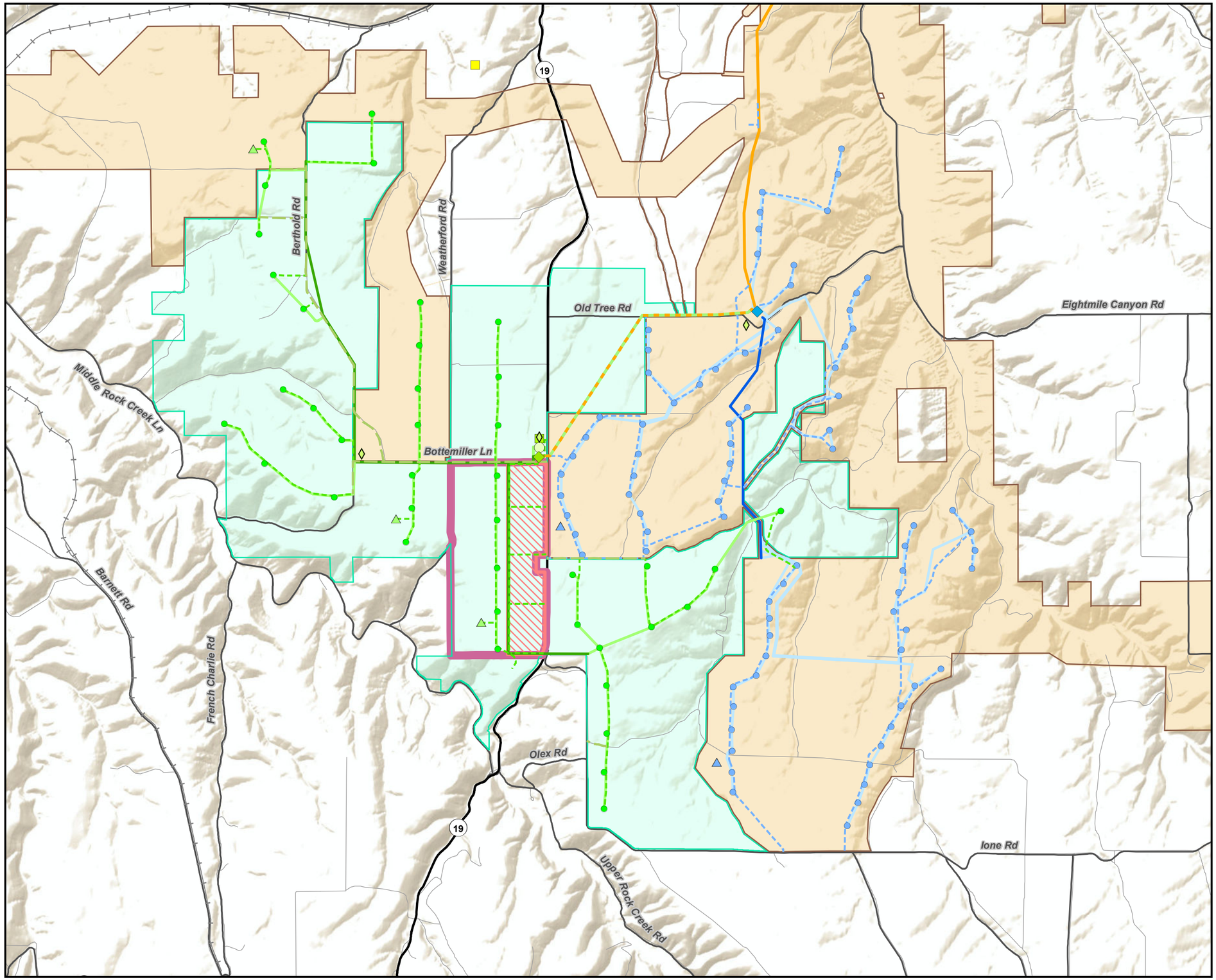
Basemap Source: ESRI World Terrain Base

Figure C-6
Phase 2 Design Scenario C: Facility Location and Layout
Montague Wind Power Facility



Legend

- Approved Site Boundary
- Approved Micrositing Corridor
- Proposed Expanded Site Boundary
- Proposed Expanded Micrositing Corridor
- Existing Shared LJIIB O&M Building

Phase 2 (Features within the Approved and Proposed Expanded Site Boundary and Micrositing Corridor)

- Proposed Turbine
- Meteorological Tower
- Phase 2 Collector Substation
- Battery Storage System
- O&M Building
- Temporary Laydown Area
- Modified 230-kV Transmission Line Route
- 34.5-kV Overhead Collector Line
- 34.5-kV Underground Collector Line
- New Access Road
- Facility Use of Existing Road
- Solar Array
- Solar Micrositing Area

Phase 1 (Features Constructed within the Approved Site Boundary and Micrositing Corridor)

- Turbine
- Meteorological Tower
- Phase 1 Substation
- Approved 230-kV Transmission Line
- 34.5-kV Overhead Collector Line
- 34.5-kV Underground Collector Line
- Access Road

Basemap Features

- Interstate/Highway
- Public Road
- Other Road
- Major Railroad Line

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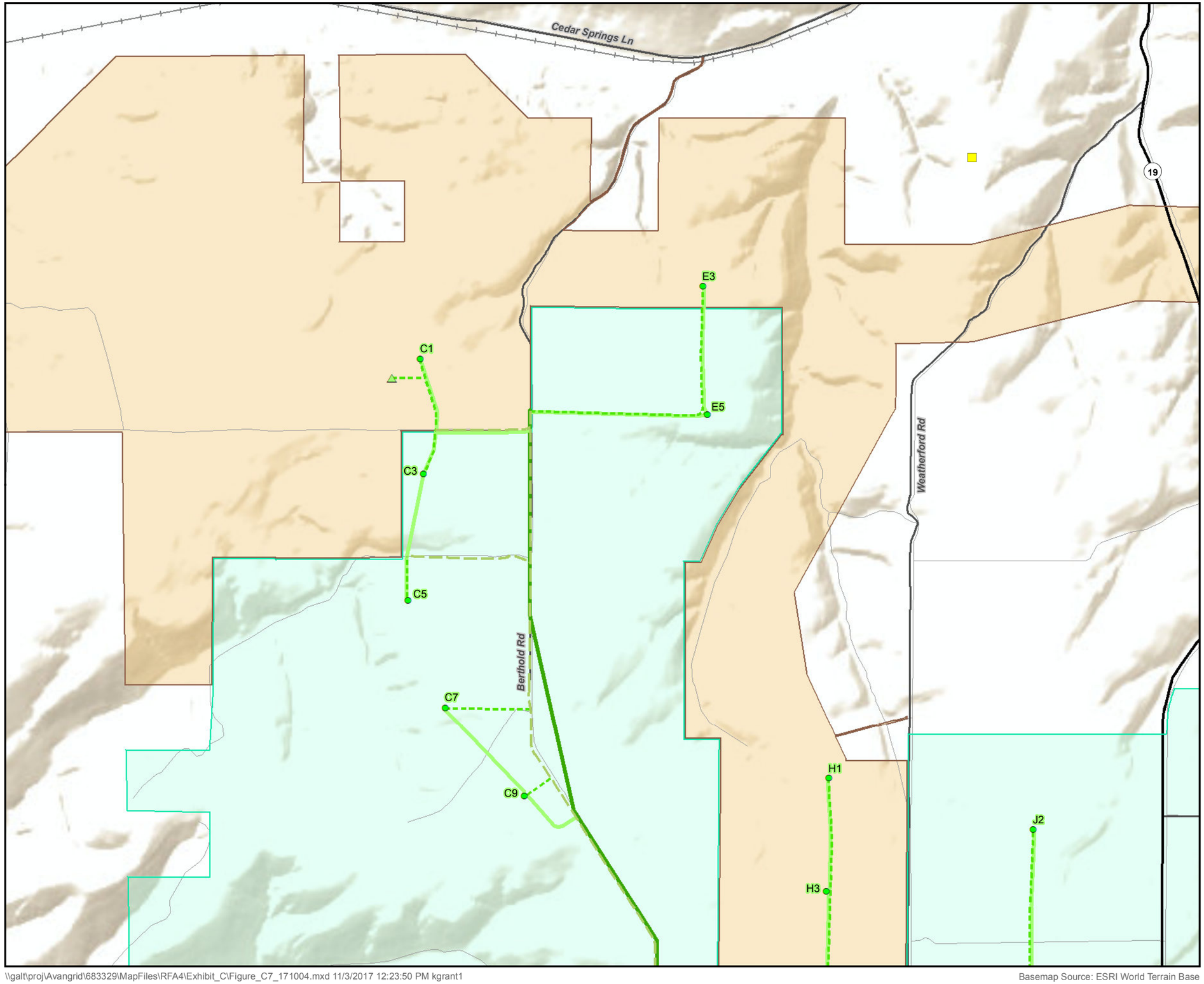
Basemap Source: ESRI World Terrain Base

Figure C-7.1
Phase 2 Design Scenario C: Detailed View
Montague Wind Power Facility



Legend

- Approved Site Boundary
- Approved Micrositing Corridor
- Proposed Expanded Site Boundary
- Proposed Expanded Micrositing Corridor
- Existing Shared LJIIB O&M Building

Phase 2 (Features within the Approved and Proposed Expanded Site Boundary and Micrositing Corridor)

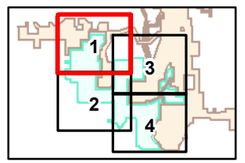
- Proposed Turbine
- Meteorological Tower
- Phase 2 Collector Substation
- Battery Storage System
- O&M Building
- Temporary Laydown Area
- Modified 230-kV Transmission Line Route
- 34.5-kV Overhead Collector Line
- 34.5-kV Underground Collector Line
- New Access Road
- Facility Use of Existing Road
- Solar Array
- Solar Micrositing Area

Phase 1 (Features Constructed within the Approved Site Boundary and Micrositing Corridor)

- Turbine
- Meteorological Tower
- Phase 1 Substation
- Approved 230-kV Transmission Line
- 34.5-kV Overhead Collector Line
- 34.5-kV Underground Collector Line
- Access Road

Basemap Features

- Interstate/Highway
- Public Road
- Other Road
- Major Railroad Line



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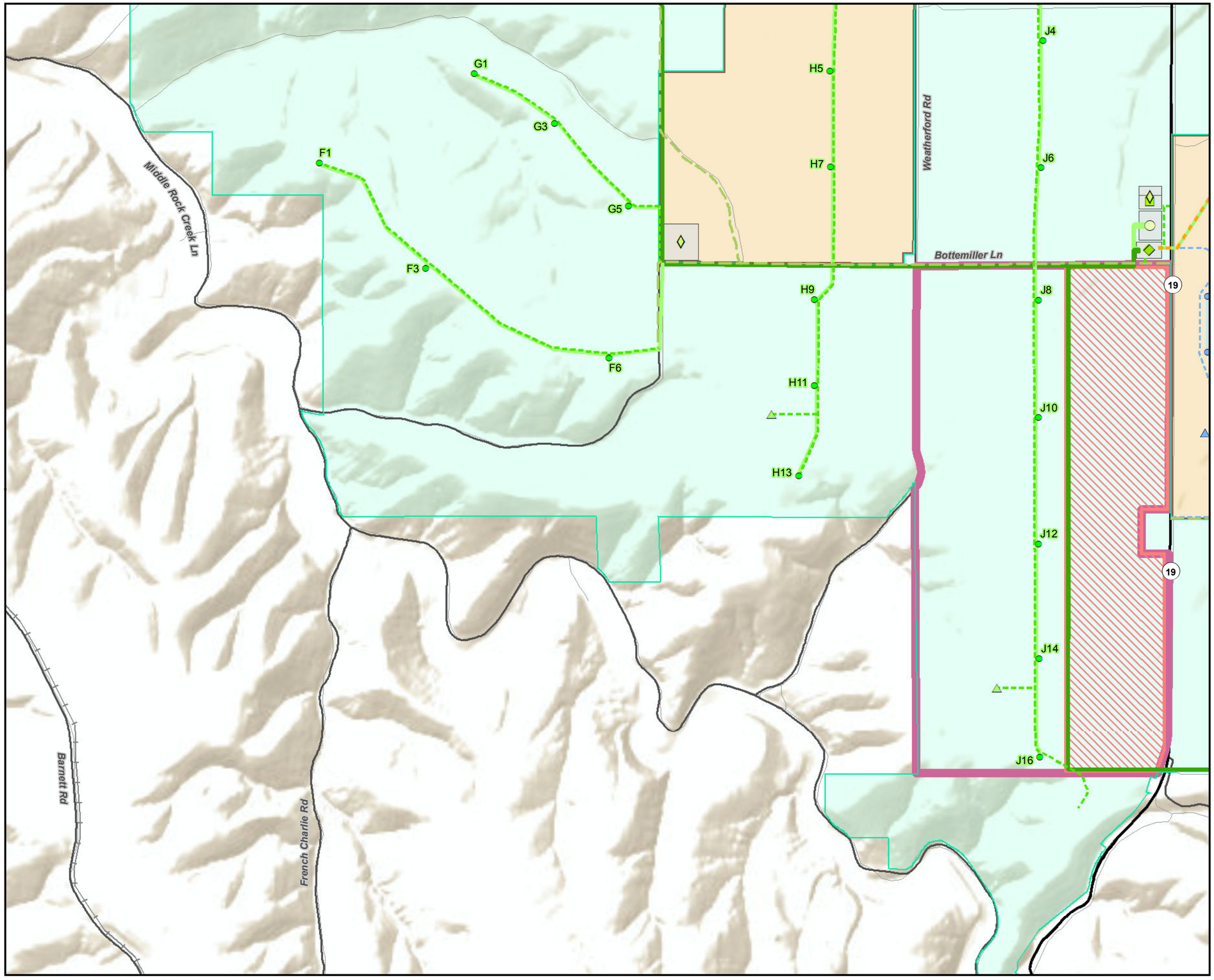
Basemap Source: ESRI World Terrain Base

Figure C-7.2
Phase 2 Design Scenario C: Detailed View
Montague Wind Power Facility



Legend

- Approved Site Boundary
- Approved Micrositing Corridor
- Proposed Expanded Site Boundary
- Proposed Expanded Micrositing Corridor
- Existing Shared LJIIB O&M Building

Phase 2 (Features within the Approved and Proposed Expanded Site Boundary and Micrositing Corridor)

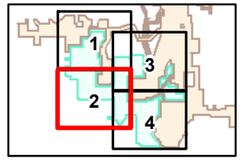
- Proposed Turbine
- Meteorological Tower
- Phase 2 Collector Substation
- Battery Storage System
- O&M Building
- Temporary Laydown Area
- Modified 230-kV Transmission Line Route
- 34.5-kV Overhead Collector Line
- 34.5-kV Underground Collector Line
- New Access Road
- Facility Use of Existing Road
- Solar Array
- Solar Micrositing Area

Phase 1 (Features Constructed within the Approved Site Boundary and Micrositing Corridor)

- Turbine
- Meteorological Tower
- Phase 1 Substation
- Approved 230-kV Transmission Line
- 34.5-kV Overhead Collector Line
- 34.5-kV Underground Collector Line
- Access Road

Basemap Features

- Interstate/Highway
- Public Road
- Other Road
- Major Railroad Line



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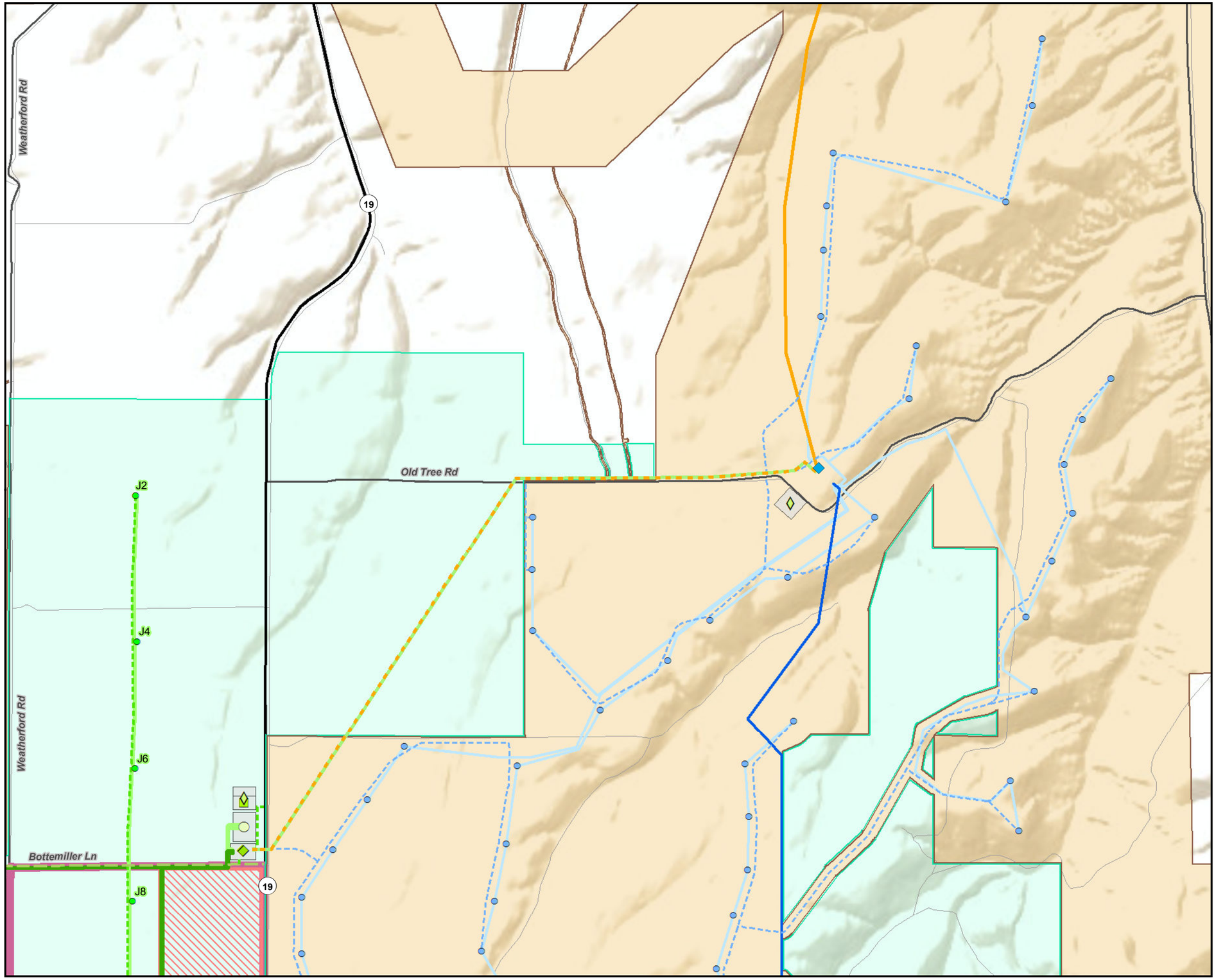
Basemap Source: ESRI World Terrain Base

Figure C-7.3
Phase 2 Design Scenario C: Detailed View
Montague Wind Power Facility



Legend

- Approved Site Boundary
- Approved Micrositing Corridor
- Proposed Expanded Site Boundary
- Proposed Expanded Micrositing Corridor
- Existing Shared LJIIB O&M Building

Phase 2 (Features within the Approved and Proposed Expanded Site Boundary and Micrositing Corridor)

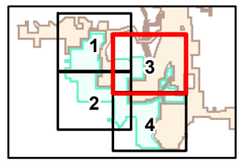
- Proposed Turbine
- Meteorological Tower
- Phase 2 Collector Substation
- Battery Storage System
- O&M Building
- Temporary Laydown Area
- Modified 230-kV Transmission Line Route
- 34.5-kV Overhead Collector Line
- 34.5-kV Underground Collector Line
- New Access Road
- Facility Use of Existing Road
- Solar Array
- Solar Micrositing Area

Phase 1 (Features Constructed within the Approved Site Boundary and Micrositing Corridor)

- Turbine
- Meteorological Tower
- Phase 1 Substation
- Approved 230-kV Transmission Line
- 34.5-kV Overhead Collector Line
- 34.5-kV Underground Collector Line
- Access Road

Basemap Features

- Interstate/Highway
- Public Road
- Other Road
- Major Railroad Line



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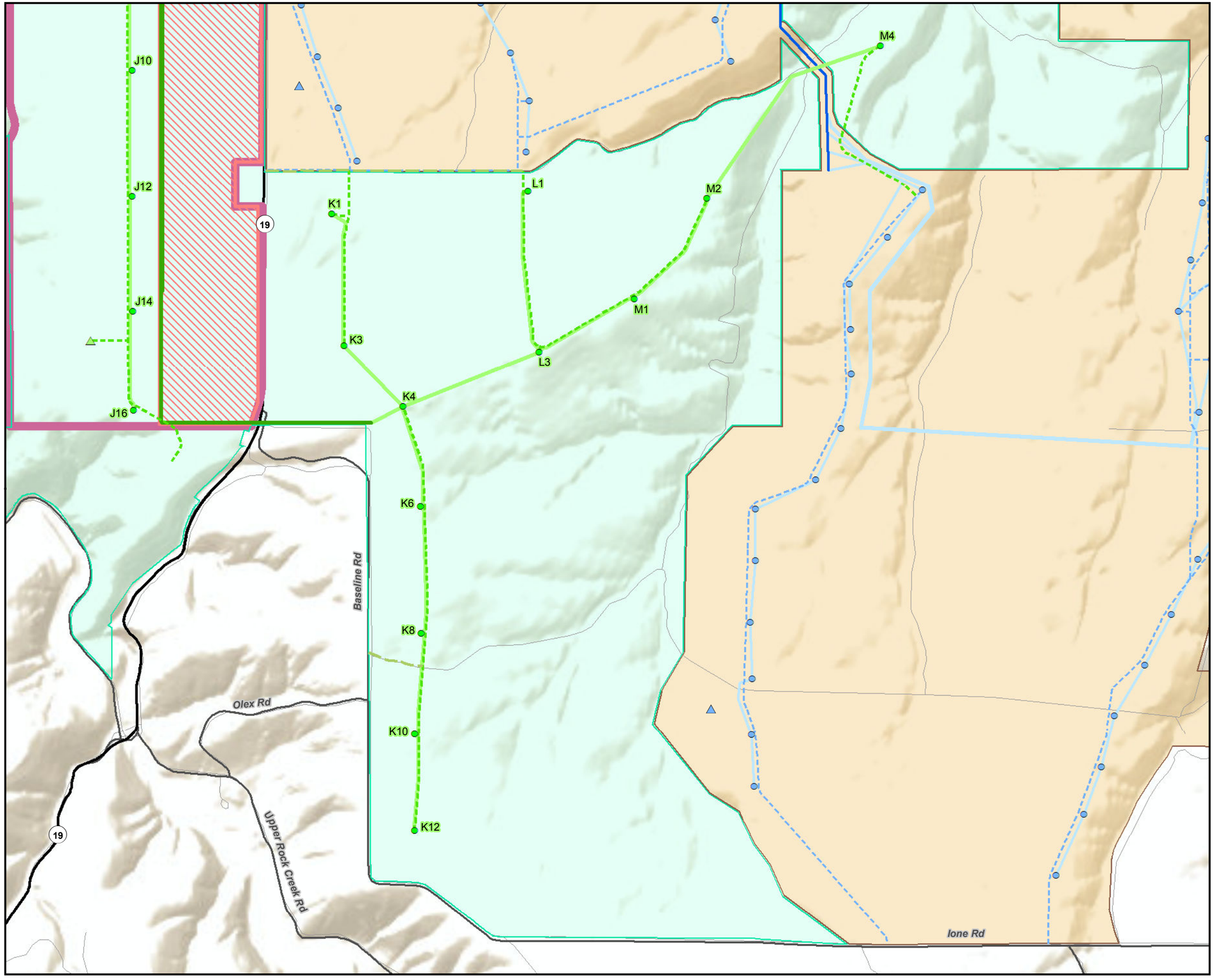
Basemap Source: ESRI World Terrain Base

Figure C-7.4
Phase 2 Design Scenario C: Detailed View
Montague Wind Power Facility



Legend

- Approved Site Boundary
- Approved Micrositing Corridor
- Proposed Expanded Site Boundary
- Proposed Expanded Micrositing Corridor
- Existing Shared LJIIB O&M Building

Phase 2 (Features within the Approved and Proposed Expanded Site Boundary and Micrositing Corridor)

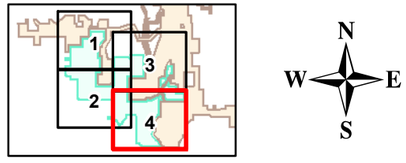
- Proposed Turbine
- Meteorological Tower
- Phase 2 Collector Substation
- Battery Storage System
- O&M Building
- Temporary Laydown Area
- Modified 230-kV Transmission Line Route
- 34.5-kV Overhead Collector Line
- 34.5-kV Underground Collector Line
- New Access Road
- Facility Use of Existing Road
- Solar Array
- Solar Micrositing Area

Phase 1 (Features Constructed within the Approved Site Boundary and Micrositing Corridor)

- Turbine
- Meteorological Tower
- Phase 1 Substation
- Approved 230-kV Transmission Line
- 34.5-kV Overhead Collector Line
- 34.5-kV Underground Collector Line
- Access Road

Basemap Features

- Interstate/Highway
- Public Road
- Other Road
- Major Railroad Line



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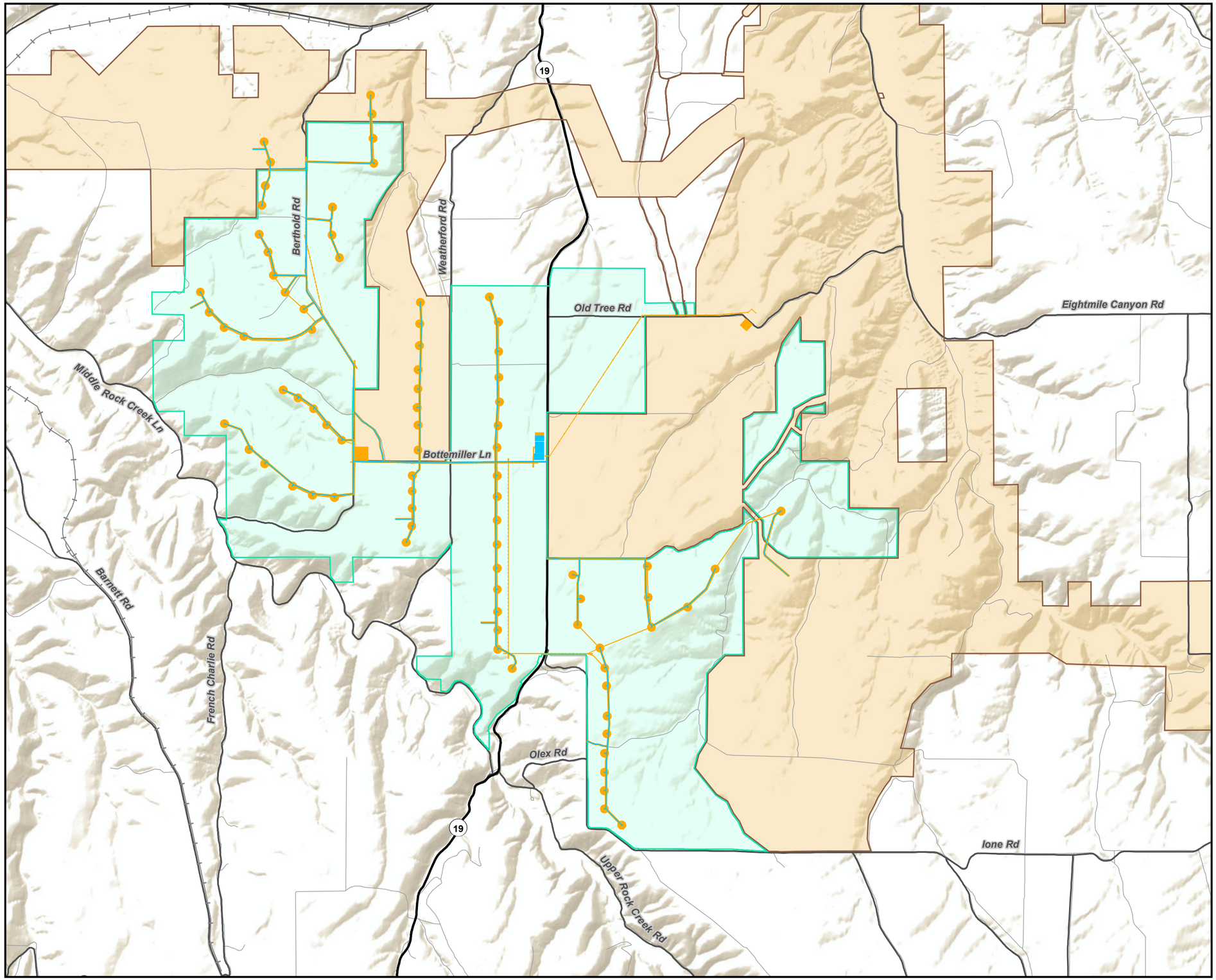
Basemap Source: ESRI World Terrain Base

Figure C-8
Phase 2 Design Scenario A: Permanent and Temporarily Disturbed Areas
Montague Wind Power Facility



Legend

- Approved Site Boundary
- Approved Micrositing Corridor
- Proposed Expanded Site Boundary
- Proposed Expanded Micrositing Corridor
- Permanently Disturbed Area
- Temporarily Disturbed Area

Basemap Features

- Interstate/Highway
- Public Road
- Other Road
- Major Railroad Line

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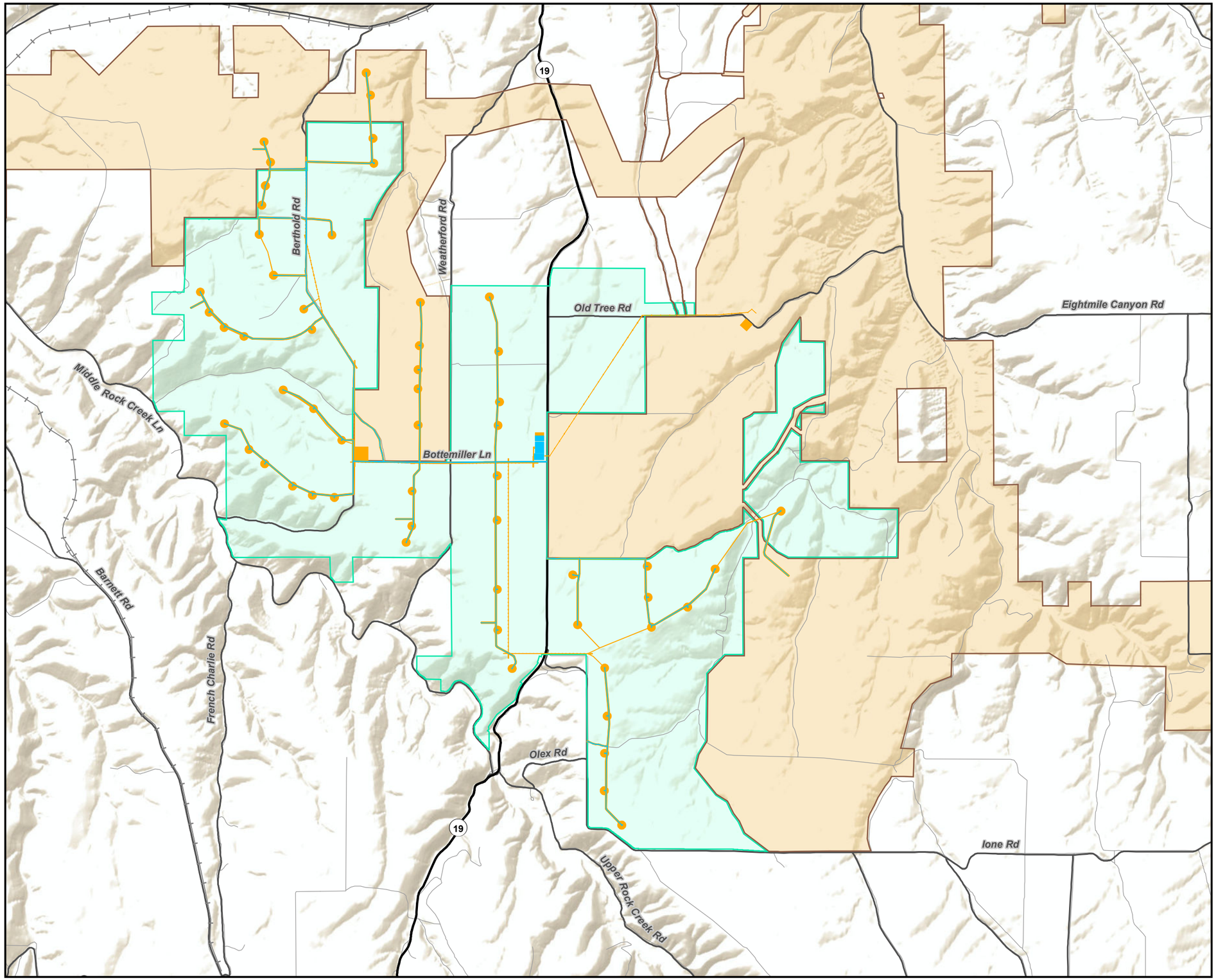
Basemap Source: ESRI World Terrain Base

Figure C-9
Phase 2 Design Scenario B: Permanent and Temporarily Disturbed Areas
Montague Wind Power Facility



Legend

- Approved Site Boundary
- Approved Micrositing Corridor
- Proposed Expanded Site Boundary
- Proposed Expanded Micrositing Corridor
- Permanently Disturbed Area
- Temporarily Disturbed Area

Basemap Features

- Interstate/Highway
- Public Road
- Other Road
- Major Railroad Line

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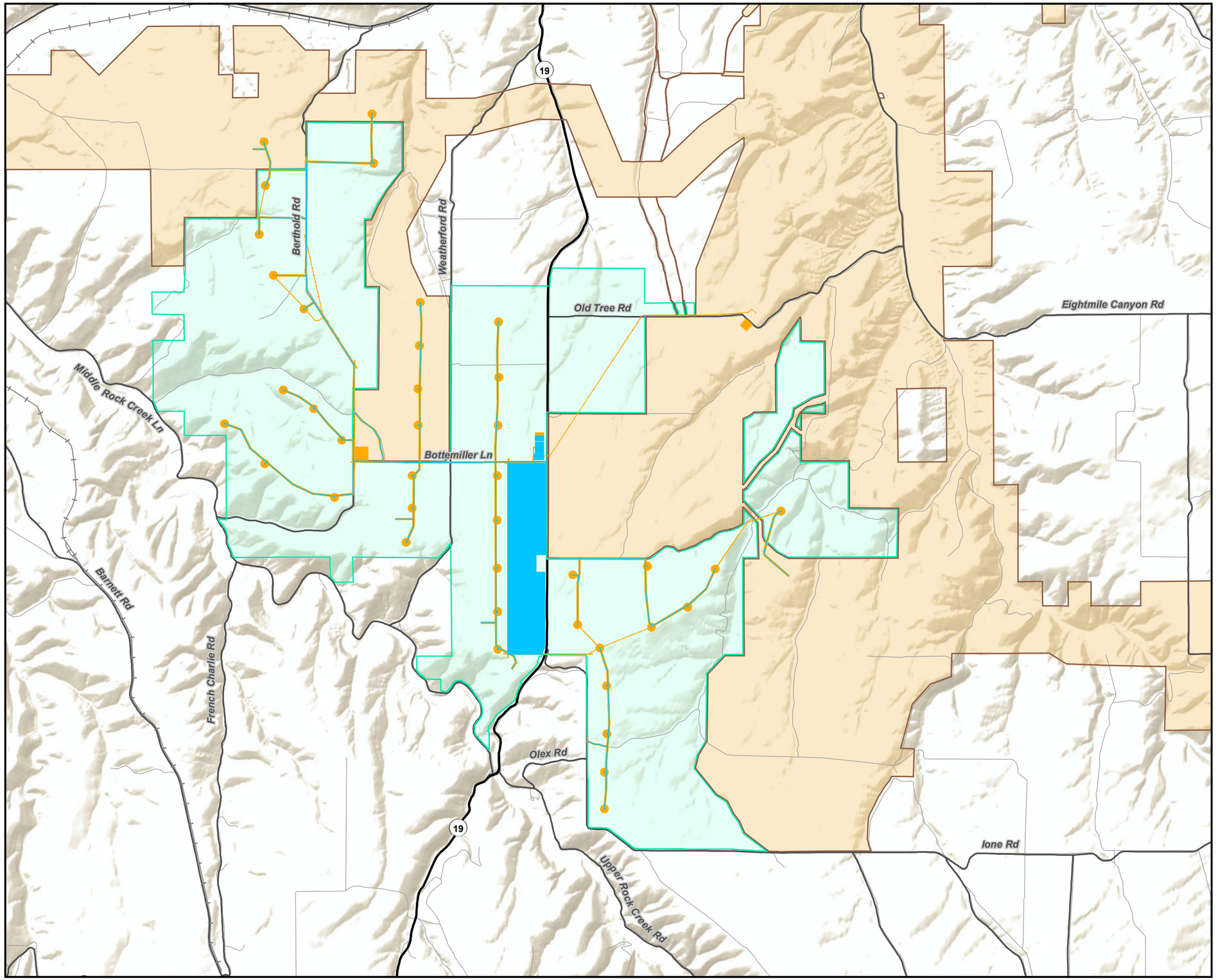
Basemap Source: ESRI World Terrain Base

Figure C-10
Phase 2 Design Scenario C: Permanent and Temporarily Disturbed Areas
Montague Wind Power Facility



Legend

- Approved Site Boundary
- Approved Micrositing Corridor
- Proposed Expanded Site Boundary
- Proposed Expanded Micrositing Corridor
- Permanently Disturbed Area
- Temporarily Disturbed Area

Basemap Features

- Interstate/Highway
- Public Road
- Other Road
- Major Railroad Line

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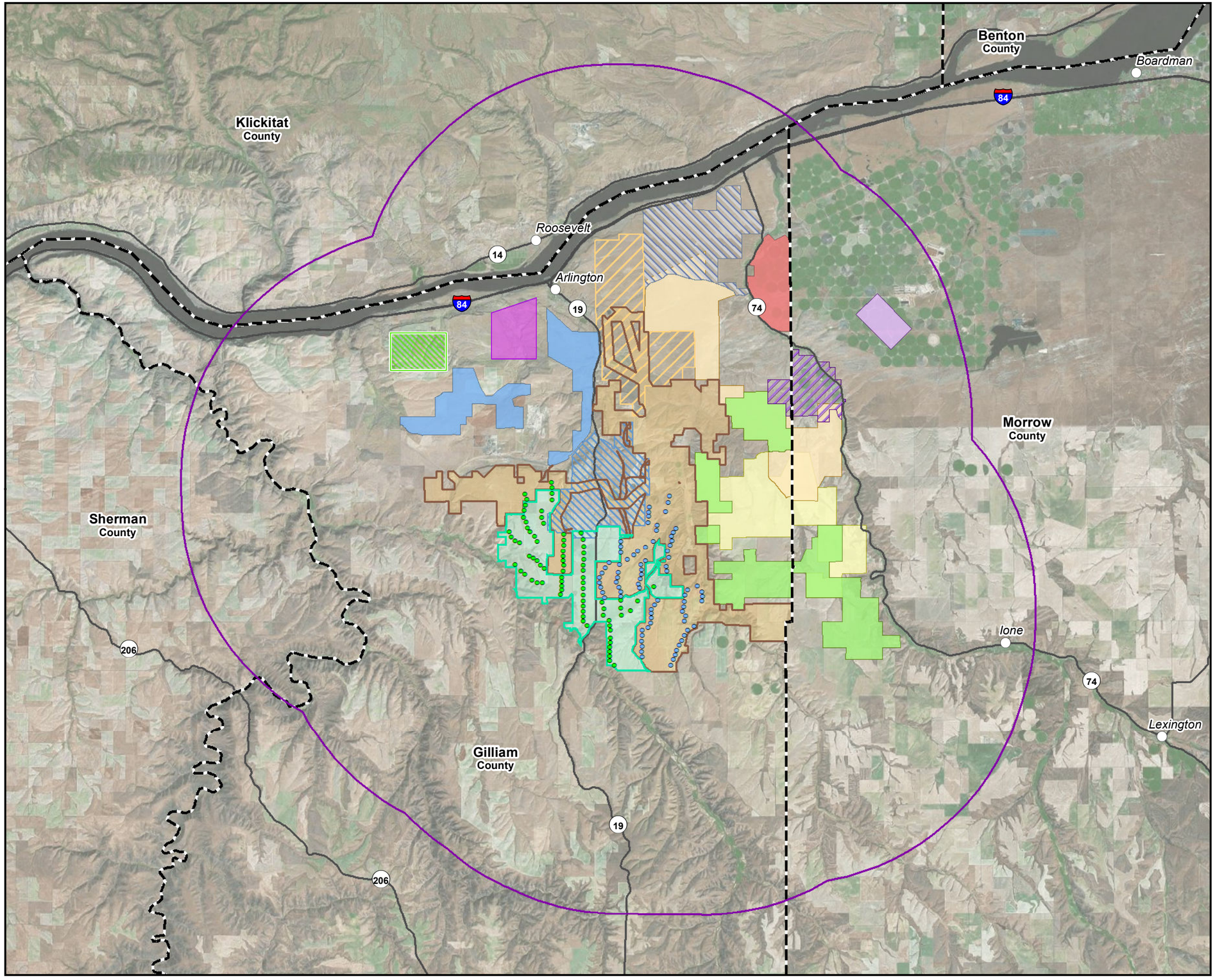
Basemap Source: ESRI World Terrain Base

Figure C-11
Other Permitted Energy Generation Facilities
Montague Wind Power Facility



Legend

- Approved Site Boundary
- Proposed Expanded Site Boundary
- 10-mile Distance from Site Boundary
- Phase 1 Turbine
- Phase 2 Proposed Turbine

Basemap Features

- Interstate/Highway
- County Boundary
- Town

Wind Energy Generation Facilities

Permitted

- Horn Butte
- Saddle Butte

Permitted and Operational

- Leaning Juniper IIA
- Leaning Juniper IIB
- Pebble Springs
- Rattlesnake Road Wind Farm*
- Shepherds Flat (North)
- Shepherds Flat (Central)
- Shepherds Flat (South)
- Threemile Canyon
- Wheat Field Wind Farm*
- Willow Creek

*Location is Approximate

Note:
The site boundaries shown are based on the best publicly available maps and data.

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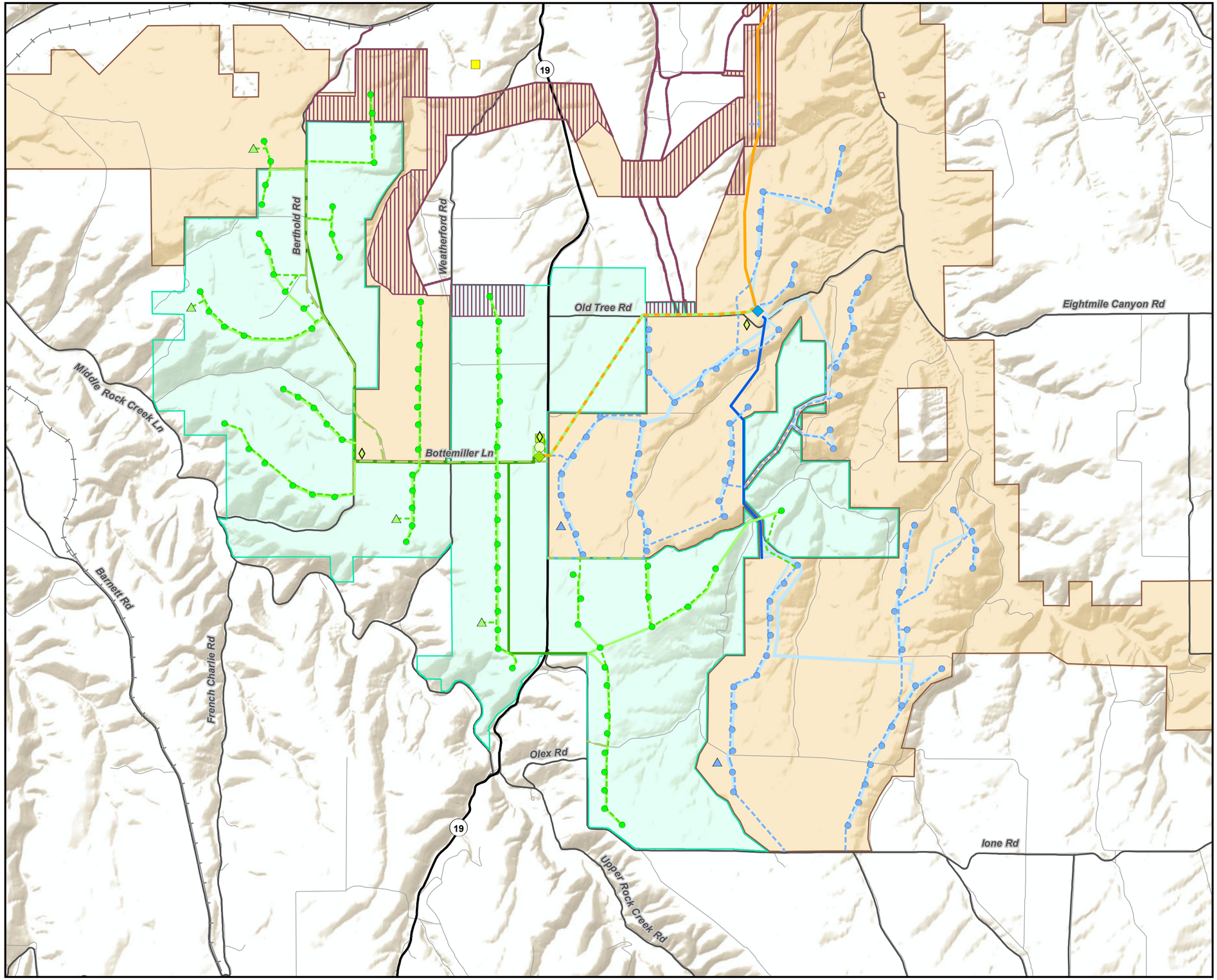
Basemap Source: ESRI World Imagery

Figure C-12
Site Boundary Overlap with Leaning Juniper IIB
Montague Wind Power Facility



Legend

- Approved Site Boundary
- Approved Micrositing Corridor
- Proposed Expanded Site Boundary
- Proposed Expanded Micrositing Corridor
- Site Boundary - Overlap with Leaning Juniper IIB
- Existing Shared LJIIB O&M Building

Phase 2 (Features within the Approved and Proposed Expanded Site Boundary and Micrositing Corridor)

- Proposed Turbine
- Meteorological Tower
- Phase 2 Collector Substation
- Battery Storage System
- O&M Building
- Temporary Laydown Area
- Modified 230-kV Transmission Line Route
- 34.5-kV Overhead Collector Line
- 34.5-kV Underground Collector Line
- New Access Road
- Facility Use of Existing Road

Phase 1 (Features Constructed within the Approved Site Boundary and Micrositing Corridor)

- Turbine
- Meteorological Tower
- Phase 1 Substation
- Approved 230-kV Transmission Line
- 34.5-kV Overhead Collector Line
- 34.5-kV Underground Collector Line
- Access Road

Basemap Features

- Interstate/Highway
- Public Road
- Other Road
- Major Railroad Line

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Basemap Source: ESRI World Terrain Base

EXHIBIT D
CERTIFICATE HOLDER'S ORGANIZATIONAL, MANAGERIAL, AND TECHNICAL EXPERTISE

OAR 345-021-0010(1)(d)

TABLE OF CONTENTS

OAR 345-021-0010(1)(d) *Information about the organizational expertise of the applicant to construct and operate the proposed facility, providing evidence to support a finding by the Council as required by OAR 345-022-0010, including:*

D.1 CERTIFICATE HOLDER'S PREVIOUS EXPERIENCE

(A) The applicant's previous experience, if any, in constructing and operating similar facilities.

Response: Montague Wind Power Facility, LLC (Montague) and its parent company, Avangrid Renewables, LLC (Avangrid), can demonstrate previous experience in constructing and operating renewable generation facilities. Avangrid, headquartered in Portland, Oregon, is the second largest operator of wind energy projects in the United States. It owns and operates more than 6,000 megawatts (MW) of utility-scale renewable energy production (Table D-1). Avangrid has successfully operated renewable energy projects in Oregon since 2001, and now owns more than 1,483 MW of utility-scale wind and solar generation in the state. Avangrid has a long history of working under the jurisdiction of the Energy Facility Siting Council (EFSC), and is the parent company backing the certificate holders of the Leaning Juniper IIA Wind Power Facility, Leaning Juniper IIB Wind Power Facility, Klondike III Wind Project, Montague Wind Power Facility, and Klamath Cogeneration Project.

Avangrid regularly carries out power supply transactions with more than 50 counterparties in the Western Electricity Coordinating Council region, including public utility districts, investor-owned utilities, electric cooperatives, and federal power-marketing administrations. This is the same wholesale energy market that the Montague Wind Power Facility in Gilliam County, Oregon (Facility) will feed.

EFSC previously found that Montague "has demonstrated that it has the organizational expertise to construct, operate, and retire the Facility in compliance with Council standards and conditions of the site certificate."[1] With respect to operation of solar facilities, Avangrid currently operates 106 MW of solar generation facilities, including the largest solar project in Oregon (the Gala Solar Project). There have been no changes to Avangrid's organizational expertise that would affect earlier findings. Therefore, EFSC may rely on its previous conclusion that the Facility complies with the Organizational Expertise standard (OAR 345-022-0010).

Table D-1. Avangrid Project Portfolio

Project Name	Location	Operational Date	Number of Turbines	Capacity (MW)
Baffin	Texas	2016	101	202
Barton	Iowa	2009	80	160
Barton Chapel	Texas	2009	60	120
Big Horn	Washington	2006	133	200
Big Horn II	Washington	2010	25	50
Blue Creek	Ohio	2012	152	304
Buffalo Ridge	South Dakota	2009	24	51
Buffalo Ridge II	South Dakota	2010	105	210

[1] These findings were made in association with the following EFSC-issued documents: *Final Order on the Application for Site Certificate for the Montague Wind Power Facility* (September 10, 2010), *Final Order on Request for Contested Case and Amendment #1 of the Site Certificate for the Montague Wind Power Facility* (June 21, 2013), *Final Order on Request for Contested Case and Amendment #2 of the Site Certificate for the Montague Wind Power Facility* (December 4, 2015), and *Final Order on Request for Contested Case and Amendment #3 of the Site Certificate for the Montague Wind Power Facility* (July 11, 2017).

Table D-1. Avangrid Project Portfolio

Project Name	Location	Operational Date	Number of Turbines	Capacity (MW)
Casselman	Pennsylvania	2007	23	35
Cayuga Ridge	Illinois	2010	15	300
Copper Crossing Solar	Arizona	2011	Not applicable	20
Desert Wind	North Carolina	2017	104	208
Dillon	California	2008	45	45
Dry Lake	Arizona	2009	30	63
Dry lake II	Arizona	2010	31	66
Elk River	Kansas	2005	100	150
Elm Creek	Minnesota	2008	66	99
Elm Creek II	Minnesota	2010	62	49
Farmers City	Missouri	2009	73	146
Flying Cloud	Iowa	2003	29	44
Gala Solar	Oregon	2017	Not applicable	56
Groton	New Hampshire	2012	24	48
Hardscrabble	New York	2011	37	74
Hay Canyon	Oregon	2009	48	101
Hoosac	Massachusetts	2012	19	29
Juniper Canyon	Washington	2011	63	152
Klamath Cogeneration	Oregon	2001	Not applicable	525
Klondike I	Oregon	2001	16	24
Klondike II	Oregon	2005	50	75
Klondike III (GE)	Oregon	2007	80	120
Klondike III (Mitsubishi)	Oregon	2007	1	3
Klondike III (Siemens)	Oregon	2007	44	102
Klondike IIIA (GE)	Oregon	2008	51	77
Leaning Juniper IIA	Oregon	2010	43	91
Leaning Juniper IIB	Oregon	2011	74	111
Lempster	New Hampshire	2008	12	24
Locust Ridge I	Pennsylvania	2007	13	26
Locust Ridge II	Pennsylvania	2009	51	102
Manzana	California	2012	126	189
MinnDakota	South Dakota	2008	100	150
Moraine I	Minnesota	2003	34	51
Moraine II	Minnesota	2009	33	50
Mountain View III	California	2003	34	23

Table D-1. Avangrid Project Portfolio

Project Name	Location	Operational Date	Number of Turbines	Capacity (MW)
New Harvest	Iowa	2012	50	100
Pebble Springs	Oregon	2009	47	99
Penascal	Texas	2009	84	202
Penascal II	Texas	2010	84	202
Phoenix	California	1999	3	3
Providence Heights	Illinois	2008	36	72
Rugby	North Dakota	2009	71	150
San Luis Solar	Colorado	2012	Not applicable	30
Shiloh	California	2006	100	150
South Chestnut	Pennsylvania	2012	23	46
Star Point	Oregon	2010	47	99
Top of Iowa II	Iowa	2007	40	80
Trimont	Minnesota	2005	67	101
Twin Buttes	Colorado	2007	50	75
Winnebago	Iowa	2008	10	20
Total			**2,923**	**6,154**

D.2 QUALIFICATIONS OF CERTIFICATE HOLDER'S PERSONNEL

(B) The qualifications of the applicant's personnel who will be responsible for constructing and operating the facility, to the extent that the identities of such personnel are known when the application is submitted.

Response: Montague is staffed through Avangrid, which has extensive experience in reliably and cost-effectively delivering renewable energy products. Avangrid has a diverse staff whose individual areas of focus include renewable development, sales, trading, engineering, construction, operations, and financing. As a result of this fundamental approach, Avangrid is able to bring a depth and breadth of experience to all phases of project development. Avangrid draws on the resources of its extensive wind and solar resource analysis, forecasting, site assessment, and permitting staff; its experience in energy development origination, trading, financing, and operations and maintenance (O&M); and its experience with stakeholder outreach to ensure efficient and inclusive project development.

D.2.1 Executive Management

Laura Beane, President and Chief Executive Officer (CEO) – Laura has spent more than 20 years with the company, including its original parent, holding a wide variety of roles and responsibilities in myriad facets of the business. Her previous executive role as Vice-President (VP) of Operations and Management Services followed her tenure as Director of Market Structure and Policy. In addition, she has led numerous special projects, including the company's innovative Self-Supply program (which involves Avangrid taking responsibility for the balancing obligation of its 1,400 MW of wind power in the Pacific Northwest).

Laura holds a Master of Business Administration (MBA) from Comillas and Strathclyde Universities as part of Iberdrola's Master in the Global Energy Industry. Previously, she earned an MBA and a Bachelor of Science (B.S.) from the University of Utah. Laura also serves as the Chairman of the Board of The Climate Trust, a national leader in carbon offset projects and innovative climate change solutions.

D.2.2 Project Development

Jesse Gronner, Vice President, Business Development – Jesse is responsible for all of the company's U.S. development activities and associated pipeline of projects in development. He has over 15 years of experience in the renewable energy business, and has been with the company, including its predecessors (PacifiCorp Power Marketing and PPM Energy), since November 2001. He began in a project management role, and has been lead project developer for numerous projects successfully placed into operations. Prior to assuming his current role, he was the Director and Managing Director for Business Development of the west region. In total, he has been directly involved with the successful completion of over 2 gigawatts (GW) of renewable projects.

D.2.3 Environmental Permitting

Laura Nagy, Director of Permitting and Environmental Affairs – Dr. Nagy is an ecologist with over 20 years of experience, specializing in avian systems, population ecology, and statistical ecology. She has experience in strategic planning for wildlife issues, including technical study design, identification of avoidance and minimization measures, development of mitigation measures, and project-specific wildlife monitoring. Laura has been providing biological support to the wind industry on wildlife-related issues related to emerging regulatory issues such as eagles and endangered species and their associated eagle conservation plans, habitat conservation plans, and National Environmental Policy Act documents. She previously worked as a consultant for the wind and solar industries at DNV GL and Tetra Tech, and completed her postdoctoral research at the U.S. Environmental Protection Agency. Laura serves on the Board of Directors of the American Wind Wildlife Institute.

D.2.4 Construction Management and Engineering

Dave Carroll, Vice President, Engineering and Construction – Dave is responsible for development support, engineering design, construction management, and operations support for capital projects. He has more than 15 years of experience in the engineering and construction industry, with more than 10 years focused on renewables. Dave has worked on the development, engineering, and construction of renewable energy projects in the United States, Canada, Mexico, and the United Arab Emirates. Before joining Avangrid, he led the engineering and construction teams for EDF Renewable Energy's U.S. operations, where he oversaw the implementation of more than 3 GW of wind, solar, biogas, and storage projects across the United States. Dave holds a B.S. in Mining and Minerals Engineering from Virginia Tech, and an MBA from the University of San Diego.

Wayne Mays, Director of Engineering – Wayne has responsibility for project engineering for all Avangrid projects in North America. His engineering and development experience in utility-scale photovoltaic (PV) solar projects is recognized in the industry. In addition to his engineering and development role, he provides consultation to Avangrid's venture capital fund in evaluating solar technology companies and is regularly called on as a speaker and panelist at solar energy conferences and industry events. Mr. Mays has over 30 years of experience in the energy business and has worked in a variety of engineering, development, and management roles in public utilities and conventional and renewable energy development companies. Mr. Mays is a registered professional engineer in the state of Oregon. He holds a B.S. in Electrical Engineering

from Oregon State University and a Master of Science (M.S.) in Electrical Engineering from Washington State University.

D.2.5 Meteorology

Dan Jaynes, Director of Energy Resource and Meteorology – Dan supports the measurement and characterization of renewable resources for Avangrid's projects. Previously, Dan spent 9 years completing resource assessment with DNV GL (the world's foremost renewable energy consultancy) and with Vestas (the world's largest wind turbine manufacturer). Dan holds a B.S. in Mechanical Engineering from Ohio State University and a Masters in Mechanical Engineering from the University of Massachusetts.

D.2.6 Transmission Planning and Interconnection

John Fisher, Director Transmission Originations – John has 17 years of experience in the power business. He manages Avangrid's transmission-related activities in terms of generation interconnection and transmission procurement, and provides transmission strategies and support for Avangrid's development projects. Prior to joining Avangrid, John managed the middle office function at PacifiCorp's regulated wholesale energy trading floor as well as providing transmission expertise. From 1990 through 1996, he worked for the Bonneville Power Administration in a variety of transmission sales, acquisition, and wholesale-energy marketing positions. John holds a B.S. in Economics and Political Science from Willamette University.

D.2.7 Origination

Barrett Stambler, Vice President, Renewable Origination – Barrett is responsible for Avangrid's sales and marketing activities throughout the United States and Canada. He has more than 30 years of experience in the renewable energy industry with Avangrid, PPM Energy, PacifiCorp, U.S. Windpower, Calpine, and the U.S. Department of Energy. Barrett currently oversees Avangrid's renewable, thermal, environmental, and integration product sales team, expanding customer relationships across North America. In 2008, the American Wind Energy Association (a national wind power trade association) presented Barrett with its Commercial Achievement Award in honor of his creative contributions to innovative structures for renewable power sales, and for the sheer volume of wind power he has sold in his 30-year career. He has been integral in Avangrid's wind power business from its earliest days, including the company's first-ever power purchase agreement for Stateline Wind Energy Center in 2001. Barrett holds a Bachelor of Arts (B.A.) from Pomona College and an MBA from Yale University.

Diana Scholtes, Managing Director, Renewable Energy Sales and Origination – Diana is responsible for leading Avangrid's origination efforts for the company's activities in the United States in both conventional and renewable technologies. This includes the execution of transactions in the long-term as well as short-term forward physical and financial markets, monetizing the value of the company's asset portfolio. Diana has nearly 20 years of energy experience, including positions at PacifiCorp, Bonneville Power Administration, Portland General Electric, Enron, and UBS Energy. Her experience comprises all major facets of the energy business, including energy trading, operations, and asset development in both utility and independent power producer environments.

D.2.8 Operations, Maintenance, and Asset Management

Mark Perryman, Vice President, Operations – Mark is responsible for the operations and performance of the company's generation assets in the United States. He manages a team of over 450 employees covering field services; O&M; and dispatch and balancing for nearly 60 wind, solar, and thermal assets located in 18 states. He is also responsible for the National Control Center, supply chain, and regulatory compliance teams. Mark, who has been with the

company since January 2005, has a long history related to renewable power generation, including plant construction, commissioning, startup, operations, maintenance, supervision, and management of multiple wind projects throughout the U.S. Formerly a General Electric Wind Energy employee, Mark has more than 28 years of experience in the renewable energy industry. He has attained a wealth of managerial, analytical, and technical omniscience throughout his career. Mark's recent continuing-education experience has included completing Stanford University's Energy Innovation & Emerging Technologies program (through its Center for Professional Development) and numerous other executive-level development programs.

Amy McGinty, Vice President, O&M Services – Amy is responsible for managing the critical services supporting the company's 6,000-MW operational fleet, including asset management; land management; performance reporting and quality; operational permitting and wildlife; and overall operational strategies. She has been with the company since 2001, serving in a wide variety of roles. Most recently, she served as part of the O&M Services team, where she led project teams and directed the strategy and deliverables for global, corporate, and departmental wind- and solar-operations initiatives. Not long ago, she coordinated the development and implementation of a comprehensive offshore wind strategy in the United States. She also spent 2 years working in Iberdrola's headquarters in Madrid. Before joining Iberdrola, Amy worked for the company's prior affiliate, Community Energy, Inc. Amy has a B.S. in Integrated Science and Technology with a concentration in Energy from James Madison University, and is bilingual in English and Spanish.

D.2.9 Finance and Legal

Benjamin Lackey, General Counsel – Ben leads the company's legal organization, including legal support of all phases of renewable project development, power sales, major transactions, and energy trading. Ben has almost 20 years of legal experience, with almost half of that in the renewables industry. Ben began his career with Cadwalader in New York. He also practiced with Jones Walker in New Orleans and Tonkon Torp in Portland before joining Avangrid in 2004. Ben earned a B.A. from Bard College and a Juris Doctor (J.D.) from the University of Chicago Law School.

Doug Stuver, Vice President – Doug is responsible for managing the accounting, financial planning, and analysis, middle office, and back office for Avangrid. He started with the company in 2015, when he joined as the Managing Director of Finance overseeing the accounting responsibilities for Renewables. Doug has been in the energy industry for approximately 25 years in various accounting, finance, and risk management roles. Most recently, he worked as Chief Financial Officer for PacifiCorp. Before joining the energy industry, he worked for Ernst & Young in auditing. Doug has a B.A. in Business Administration from the University of Pittsburgh.

D.3 QUALIFICATIONS OF KNOWN CONTRACTORS

(C) The qualifications of any architect, engineer, major component vendor, or prime contractor upon whom the applicant will rely in constructing and operating the facility, to the extent that the identities of such persons are known when the application is submitted.

Response: Montague has previously worked with contractors experienced with the construction, operation, and maintenance of wind, solar, and battery-storage facilities. Selection criteria will center on qualified engineers, manufacturers, and contractors who are experienced in these industries.

D.4 CERTIFICATE HOLDER'S PAST PERFORMANCE

(D) The past performance of the applicant, including but not limited to the number and severity of any regulatory citations in constructing or operating a facility, type of equipment, or process similar to the proposed facility.

Response: Montague's parent company, Avangrid, has a long history of developing wind power projects in the United States, as described in Section D.1. There have been no regulatory citations related to constructing or operating a facility, type of equipment, or process similar to the proposed Facility.

D.5 IF NO PREVIOUS EXPERIENCE

(E) If the applicant has no previous experience in constructing or operating similar facilities and has not identified a prime contractor for construction or operation of the proposed facility, other evidence that the applicant can successfully construct and operate the proposed facility. The applicant may include, as evidence, a warranty that it will, through contracts, secure the necessary expertise.

Response: Not applicable. Montague has previous experience as demonstrated in Section D.1.

D.6 ISO-CERTIFIED PROGRAM

(F) If the applicant has an ISO 9000 or ISO 14000 certified program and proposes to design, construct and operate the facility according to that program, a description of the program.

Response: Montague does not have an International Organization for Standardization (ISO) 9000 or 14000 certified program.

D.7 MITIGATION

(G) If the applicant relies on mitigation to demonstrate compliance with any standards of Division 22 or 24 of this chapter, evidence that the applicant can successfully complete such proposed mitigation, including past experience with other projects and the qualifications and experience of personnel upon whom the applicant will rely, to the extent that the identities of such persons are known at the date of submittal.

Response: Mitigation for the Facility may be required for impacts to wildlife habitat and other resources. Montague has executed a mitigation agreement to conserve 80 acres of Category 2, 3, and 4 habitat with the potential to become Category 2 habitat through mitigation (i.e., enhancement). Of this area, 17 acres will be allocated to unavoidable habitat impacts associated with Phase 1, leaving the remaining 63 acres available for Phase 2 mitigation. If more than 63 areas are needed, Montague will obtain new conservation easements from willing landowners. New mitigation sites will be selected in consultation with the Oregon Department of Fish and Wildlife to ensure that the mitigation sites compensate for the loss of habitat related to Phase 2. Montague's parent company has developed and implemented mitigation projects for multiple projects in Oregon, including Klondike III and Gala Solar. In designing and executing these and other mitigation projects, Avangrid relies on in-house expertise and on the selection and management of qualified outside contractors from firms such as CH2M, Tetra Tech, HDR, and Northwest Wildlife Consultants.

D.8 REFERENCES

Energy Facility Siting Council (EFSC). 2010. *Final Order on the Application for Site Certificate for the Montague Wind Power Facility*. September 10.

Energy Facility Siting Council (EFSC). 2013. *Final Order on Request for Contested Case and Amendment #1 of the Site Certificate for the Montague Wind Power Facility*. June 21.

Energy Facility Siting Council (EFSC). 2015. *Final Order on Request for Contested Case and Amendment #2 of the Site Certificate for the Montague Wind Power Facility*. December 4.

Energy Facility Siting Council (EFSC). 2017. *Final Order on Request for Contested Case and Amendment #3 of the Site Certificate for the Montague Wind Power Facility.* July 12.

EXHIBIT E
PERMITS REQUIRED FOR CONSTRUCTION AND OPERATION

OAR 345-021-0010(1)(e)

TABLE OF CONTENTS

E.1 INTRODUCTION

The Energy Facility Siting Council (EFSC; Council) previously approved construction of the 404-megawatt (MW) Montague Wind Power Facility (Facility)[1] and found that Montague Wind Power Facility, LLC (Montague) appropriately identified permits required for construction and operation in accordance with OAR 345-021-0010(1)(e). Montague is constructing the Facility in two phases. Phase 1 consists of up to 81 wind turbines generating 202 MW of power within the approved boundary. Montague has already begun construction of Phase 1 under the conditions of the existing Site Certificate. Phase 2 consists of an expanded site boundary, solar array, and battery storage. The analysis in this exhibit focuses on Phase 2 and the three design scenarios described in *Request for Amendment No. 4 Project Description and OAR Division 27 Compliance* (referred to herein as RFA 4).

E.2 SUMMARY OF INFORMATION PROVIDED

Sections E.4 through E.8 provide information about permits needed for construction and operation of the components associated with RFA 4. Montague is requesting approval to construct and operate the Facility, as modified by RFA 4 to accommodate the Phase 2 development. Phase 2 includes the proposed expanded site boundary and the addition of a solar array and battery storage. Phase 2 does not require any new permits that were not previously considered by EFSC, with the possible exception of a third-party permit for washing of the solar array, specifically coverage under the Oregon Department of Environmental Quality's (DEQ's) general water pollution control facilities permit.

E.3 CONDITION COMPLIANCE

The Third Amended Site Certificate contains conditions designed to ensure that Montague, its contractors, or any other third party obtain the necessary federal, state, and local permits or approvals required for construction and operation of the Facility. The modifications proposed under RFA 4 do not affect Montague's ability to comply with the existing Site Certificate conditions and no new conditions are needed to manage the acquisition of necessary permits and approvals and Montague's proposed monitoring program.

E.4 IDENTIFICATION AND DESCRIPTION OF REQUIRED PERMITS

OAR 345-021-0010(1)(e) *Information about permits needed for construction and operation of the facility, including:*

OAR 345-021-0010(1)(e)(A) *Identification of all federal, state and local government permits related to the siting of the proposed facility, a legal citation of the statute, rule or ordinance governing each permit, and the name, mailing address, email address and telephone number of the agency or office responsible for each permit.*

OAR 345-021-0010(1)(e)(B) *A description of each permit, the reasons the permit is needed for construction or operation of the facility and the applicant's analysis of whether the permit should or should not be included in and governed by the site certificate.*

Response: Sections E.4.1 through E.4.4 identify and describe the required federal, state, and local permits.

[1] EFSC. 2017. *Third Amended Site Certificate for Montague Wind Power Facility*. July 11.

E.4.1 Federal Permits

Response: Table E-1 identifies and describes the federal permits required for construction and operation of the Facility.

Table E-1. Federal Permits Required for Construction and Operation

Permit Name	Agency Name and Address	Authority	Description
Record of Decision/ National Environmental Policy Act Compliance	Bonneville Power Administration (BPA) Michael O'Connell, Environmental Protection Specialist 905 NE 11th Avenue Portland, OR 97232 mjoconnell@bpa.gov (503) 230-7692	National Environmental Policy Act (NEPA), Section 102 (42 *United States Code* [U.S.C.] Section 4332); 40 *Code of Federal Regulations* [CFR] Section 1500)	Montague will interconnect with the BPA existing Slatt Substation in Gilliam County. BPA has completed its environmental review for the Facility and issued a Categorical Exclusion under NEPA (BPA, 2017). The interconnection allows delivery of 404 MW to the BPA transmission system.
Notice of Proposed Construction or Alteration (Form 7460-1)	Federal Aviation Administration (FAA) Attention: Dan Shoemaker Airspace Specialist Seattle Obstruction Evaluation Group Dan.Shoemaker@faa.gov (425) 227-2791	Federal Aviation Act of 1958 (14 U.S.C. Section 44718); 14 CFR Part 77	The Facility's turbine towers will be more than 200 feet in height and therefore will trigger review by the FAA pursuant to 14 CFR Part 77. Upon review of tower location and height, the FAA issues a determinative notice if the Facility will interfere with flight paths. The FAA issues a Determination of No Hazard to Air Navigation (DNH) upon completion of its review. Issuance of the DNH is not considered a permit activity by FAA. This federal process is not within the jurisdiction of EFSC and therefore should not be included in the Site Certificate.
Supplemental Notice of Actual Construction or Alteration (Form 7460-2)	FAA Attention: Dan Shoemaker Airspace Specialist Seattle Obstruction Evaluation Group Dan.Shoemaker@faa.gov (425) 227-2791	Federal Aviation Act of 1958 (14 U.S.C. Section 44718); 14 CFR Part 77	Submission of the Supplemental Notice of Actual Construction or Alteration form must be filed within 5 days after construction reaches its greatest height as specified in the DNH.

E.4.2 State Permits: Not Federally Delegated

Response: Table E-2 identifies and describes the state permits not federally delegated that are required for construction and operation of the Facility.

Table E-2. State Permits Not Federally Delegated

Permit Name	Agency Name and Address	Authority	Description
Amendment to Energy Facility Site Certificate	Oregon Department of Energy Todd Cornett Siting Division Administrator 550 Capitol Street NE Salem, OR 97301 (541) 378-8328	ORS 469.300 *et seq.*; OAR Chapter 345, Divisions 1, 21-24, 27	An amendment to Montague's Energy Facility Site Certificate is required before construction of Facility elements proposed under RFA 4 because Montague has requested an amendment to its Site Certificate under OAR 345-027-0050.
Onsite Sewage Disposal Construction-Installation Permit	DEQ Bob Baggett Water Quality Onsite Program	ORS 454 and 468B; OAR Chapter 340, Divisions 71 and 73	Facilities with an onsite sewage disposal system and a projected daily sewage flow of less than 2,500 gallons must obtain a construction-installation permit before

Table E-2. State Permits Not Federally Delegated

Permit Name	Agency Name and Address	Authority	Description
	DEQ Eastern Region 800 SE Emigrant, Suite 330 Pendleton, OR 97801 (541) 633-2036 (800) 304-3513		construction. A construction-installation permit will be obtained for the Montague operations and maintenance building.
General Water Pollution Control Facilities Permit, WPCF-1000, Gravel Mining and Batch Plant	DEQ Eastern Region 800 SE Emigrant, Suite 330 Pendleton, OR 97801 (541) 276-4063	ORS 468B; OAR Chapter 340, Division 45	This permit authorizes the permittee to operate a wastewater collection, treatment, control, and disposal system for sand, gravel, and other nonmetallic mineral quarrying and mining operations, including asphalt-mix batch plants, concrete batch plants, and other related activities. If a temporary batch plant is required for Facility construction, Montague's third-party contractor will obtain a WPCF-1000 permit directly from DEQ and therefore this permit should not be included in and governed by the site certificate.
General Water Pollution Control Facilities Permit, WPCF-1700-B, Washwater Discharge from Equipment Cleaning	DEQ Eastern Region 800 SE Emigrant, Suite 330 Pendleton, OR 97801 (541) 276-4063	ORS 468B; OAR Chapter 340, Division 45	Solar modules may be washed twice annually and the washwater will be released to the ground and allowed to evaporate and infiltrate. The washwater will not be heated or include detergents. The WPCF-1700-B permit covers equipment-cleaning activities that discharge washwater by means of evaporation, seepage, or irrigation, including both fixed and mobile washing operations. Montague's third-party contractor will conduct the washing activities and seek coverage under the WPCF-1700-B permit from DEQ following completion of construction and before initiating any washing activities. Therefore, this permit should not be included in and governed by the site certificate.
Water Right Permit or Water Use Authorization	Oregon Water Resources Department (OWRD) Ken Thiemann Water Rights Section District 21 PO Box 427 Condon, OR 97823 (541) 276-4063 (800) 452-4011	ORS 537; OAR Chapter 690, Divisions 310, 340, 410 and 507	During construction, the construction contractor will be responsible for identifying water sources and assuring that any needed permits or approvals are obtained for construction water use. Water will either be obtained from the City of Arlington or from an existing or newly constructed onsite well or wells permitted under a limited water use license issued by OWRD. See Exhibit O for further discussion. During operation, the Facility will obtain water from an exempt, onsite groundwater well or wells, which allows the use of up to 5,000 gallons per day of groundwater for industrial and commercial applications. Montague

Table E-2. State Permits Not Federally Delegated

Permit Name	Agency Name and Address	Authority	Description
			contacted Michelle Colby, the Gilliam County Planning Director (Colby, 2017, pers. comm.), who suggested contacting OWRD about water rights and permit requirements. Montague then contacted OWRD, and received confirmation that a local land use or building permit is not required for drilling wells (Kudlemyer, 2017, pers. comm.).
Archeological Excavation Permit	Oregon Parks and Recreation Department, State Historic Preservation Office (SHPO) Matt Diederich, MAIS 725 Summer Street, NE, Suite C Salem, OR 97301 (503) 986-0577	ORS Chapters 97, 197, 358, and 390; OAR Chapter 736, Division 51 (Permit and Conditions for Excavation or Removal of Archeological or Historical Materials on Private Land)	During construction, if a previously unidentified archaeological site is discovered, all construction will cease and Montague will report the finding to SHPO immediately. In that instance, SHPO will require an archaeological excavation permit. Montague does not anticipate that this permit will be required (see Exhibit S for further discussion). However, should this permit be required, Montague will obtain it from SHPO and therefore this permit should not be included in and governed by the Site Certificate (see Exhibit S for further discussion).
Oversize Load Movement Permit/Load Registration	Oregon Department of Transportation (ODOT) Motor Carriers Transportation Division 3930 Fairview Industrial Drive SE Salem, OR 97302 (503) 378-5849	ORS 818.030; OAR Chapter 734, Division 82	This permit is required for hauling oversized or heavy loads on state highways. Montague will obtain it from ODOT and therefore this permit should not be included in and governed by the Site Certificate.
Permit to Construct a State Highway Approach	ODOT Region 4, District 9 3313 Bret Clodfelter Way The Dalles, OR 97058 (541) 296-2215	OAR Chapter 734, Division 51	This permit is required for modifying a highway approach.
Utility Permit: Right-of-Way	ODOT 4040 Fairview Industrial Drive, MS 2 Salem, Oregon 97302 (503) 986-3600	ORS 758.010; OAR Chapter 734, Division 55	This permit is required for installation, maintenance, and operation of utility facilities crossing or within state right-of-way.

E.4.3 State Permits: Federally Delegated

Response: Table E-3 identifies and describes the state permits federally delegated that are required for construction and operation of the Facility.

Table E-3. State Permits Federally Delegated

Permit Name	Agency Name and Address	Authority	Description
Basic Air Contaminant Discharge Permit (ACDP)	DEQ Air Quality Division Eastern Region 475 NE Bellevue, Suite 110 Bend, OR 97701 (541) 633-2026	Clean Air Act (42 U.S.C. Section 7401 *et seq.*); 40 CFR Parts 50, 51, and 52 ORS Chapters 468 and 468A OAR Chapter 340, Division 216	A Basic ACDP authorizes the permittee to operate a stationary or portable concrete manufacturing plant that produces more than 5,000 but less than 25,000 cubic yards per year output. If a portable

Table E-3. State Permits Federally Delegated

Permit Name	Agency Name and Address	Authority	Description
			concrete manufacturing plant is required for Facility construction, a Basic ACDP will be obtained from DEQ.
National Pollutant Discharge Elimination System (NPDES) 1200-C General Stormwater Discharge Permit for Construction	Todd Hess DEQ Eastern Region 475 NE Bellevue Drive, Suite 110 Bend, OR 97701 (541) 633-2026	Clean Water Act, Section 402 (33 U.S.C. Section 1342); 40 CFR Part 122; ORS 468 and 468B; OAR Chapter 340, Division 45	This NPDES permit authorizes stormwater discharges associated with construction activity. The permit is required for construction projects that disturb more than 1 acre of ground. Montague has received and maintains an active DEQ NPDES 1200-C general stormwater discharge permit for construction (DEQ File Number 119651) (see Attachments I-1 and I-2 to Exhibit I).

E.4.4 Local Permits

Response: Table E-4 identifies and describes the local permits required for construction and operation of the Facility.

Table E-4. Local Permits

Permit Name	Agency Name and Address	Authority	Description
Conditional Use Permit and Zoning Permit	Planning Department & Planning Commission Michelle Colby, Gilliam County Planning Director 221 S. Oregon Street P.O. Box 427 Condon, OR 97823 (541) 384-2381	Gilliam County Zoning Ordinance Article 11—Administrative Provisions	Montague elects to demonstrate compliance with local land use criteria through the site certificate process. Montague will obtain a conditional use permit and zoning permit pursuant to ORS 469.401(3) per Table E-2 above under Amendment to Energy Facility Site Certificate.

E.5 PERMIT APPLICATIONS NOT FEDERALLY DELEGATED

OAR 345-021-0010(1)(e)(C) *For any state or local government agency permits, licenses or certificates that are proposed to be included in and governed by the site certificate, evidence to support findings by the Council that construction and operation of the proposed facility will comply with the statutes, rules and standards applicable to the permit. The applicant may show this evidence:*

(i) In Exhibit J for permits related to wetlands.

Response: No permits for wetland impacts will be required. Please see Exhibit J for additional information.

(ii) In Exhibit O for permits related to water rights.

Response: Water for construction and periodic solar panel washing (under Design Scenario C) will either be obtained from the City of Arlington under an existing municipal water right, or

from an existing or newly constructed well or wells permitted under a limited water use license. See Exhibit O for additional information.

E.6 PERMIT APPLICATIONS FEDERALLY DELEGATED

OAR 345-021-0010(1)(e)(D) *For federally-delegated permit applications, evidence that the responsible agency has received a permit application and the estimated date when the responsible agency will complete its review and issue a permit decision.*

Response: Montague has received and maintains an active DEQ NPDES 1200-C general stormwater discharge permit for construction (DEQ File Number 119651) (see Attachments I-1 and I-2 to Exhibit I).

E.7 THIRD-PARTY STATE PERMITS

OAR 345-021-0010(1)(e)(E) *If the applicant relies on a state or local government permit or approval issued to a third party, identification of any such third-party permit and for each:*

> *(i) Evidence that the applicant has, or has a reasonable likelihood of entering into, a contract or other agreement with the third party for access to the resource or service to be secured by that permit.*

Response: Of the Facility permits identified above, Montague's third-party contractors will pursue and obtain the state permits described in Table E-5, if required. Montague often relies on contractors to obtain third-party permits for constructing energy facilities such as the facilities described in Exhibit D. During Facility construction and operation, Montague will select similarly qualified contractors with experience constructing renewable energy facilities and a reasonable likelihood of securing the required permits.

Table E-5. Third-party State Permits

Permit Name	Project Phase	Description
DEQ Onsite Sewage Disposal Construction-Installation Permit	Operation	An onsite sewage disposal construction-installation permit will be obtained for the operations and maintenance building during Facility operation. The septic system will serve the employee bathrooms and kitchen facilities.
DEQ General Water Pollution Control Facilities Permit, WPCF-1000, Gravel Mining and Batch Plant	Construction	A general water pollution control facilities permit (WPCF-1000) will be obtained to manage wastewater and stormwater from the establishment and operation of a temporary concrete batch plant, if required for Facility construction.
DEQ General Water Pollution Control Facilities Permit, WPCF-1700-B, Washwater Discharge from Equipment Cleaning	Operation	A general water pollution control facilities permit (WPCF-1700-B) will be obtained for solar module washing during Facility operation.
OWRD Water Right Permit or Water Use Authorization	Construction and Operation	A limited water use license will be obtained for water derived from an existing or newly constructed onsite well or wells.
ODOT Oversized Load Movement Permit/Load Registration	Construction	An oversize load movement permit/load registration will be required for transporting large or overweight equipment to the site over state roads.

(ii) Evidence that the third party has, or has a reasonable likelihood of obtaining, the necessary permit.

Response: As indicated above, for each permit identified, Montague has worked with contractors familiar with constructing or operating renewable energy facilities, and who are knowledgeable of the requirements for applications and activities under such permits. Montague will select the same, or similar, contractors who have the necessary experience to likely obtain the necessary permits.

(iii) An assessment of the impact of the proposed facility on any permits that a third party has obtained and on which the applicant relies to comply with any applicable Council standard.

Response: Not applicable.

E.8 THIRD-PARTY FEDERALLY DELEGATED PERMITS

OAR 345-021-0010(1)(e)(F) *If the applicant relies on a federally-delegated permit issued to a third party, identification of any such third-party permit and for each:*

(i) Evidence that the applicant has, or has a reasonable likelihood of entering into, a contract or other agreement with the third party for access to the resource or service to be secured by that permit.

(ii) Evidence that the responsible agency has received a permit application.

(iii) The estimated date when the responsible agency will complete its review and issue a permit decision.

Response: Montague will direct its third-party contractor to obtain a Basic Air Contaminant Discharge Permit (Clean Air Act [42 U.S.C. Section 7401 *et seq.*]); 40 CFR Parts 50, 51, and 52; ORS Chapters 468 and 468A; OAR Chapter 340, Division 216) to potentially authorize the temporary establishment of a concrete batch plant at the Facility for purposes of supplying concrete batching services. This permit typically is required for the construction of renewable energy facilities in Oregon to provide a source of concrete in the vicinity of the construction activities. A contractor familiar with constructing renewable energy facilities will have experience obtaining this permit from DEQ.

E.9 MONITORING

OAR 345-021-0010(1)(e)(G) *The applicant's proposed monitoring program, if any, for compliance with permit conditions.*

Response: Montague is required to comply with the monitoring provisions of the Third Amended Site Certificate. Monitoring requirements are included in Site Certificate Conditions 19, 21(b)(4), 44, 58, 67, 91, 92, 96, and 108, each of which is summarized as follows:

- Condition 19: Montague will consult with affected governmental agencies, prepare specific monitoring programs for impacts to protected resources, implement the programs, implement quality assurance measures, and submit reports to the Department should significant environmental changes or impacts attributable to the Facility be identified.

- Condition 21(b)(4): Montague will report on the previous year's monitoring activities, the results therefrom, and any reasons as to why monitoring plans should be modified.
- Condition 44: Montague will monitor the restoration of temporarily disturbed areas during Facility operation.
- Condition 58: Montague will install self-monitoring devices on turbines to alert operators to potentially dangerous conditions.
- Condition 67: Montague will have a safety monitoring program for turbine components.
- Condition 91: Montague will conduct wildlife monitoring as described in the Facility's *Wildlife Monitoring and Mitigation Plan*. Montague will develop and implement monitoring programs compliant with these requirements.
- Condition 92: Montague will monitor restoration of areas disturbed by construction in accordance with procedures described in the final Revegetation Plan.
- Condition 96: During construction, Montague will monitor potential nest sites for activity during the species' specific sensitive period.
- Condition 108: Montague, if required by the Council, will monitor and record statistical turbine noise levels.

The monitoring measures proposed by Montague for compliance with permit conditions are also described elsewhere in RFA 4, for example, NPDES 1200-C permit requirements for erosion control monitoring (see Exhibit I).

E.10 CONCLUSION

On the basis of the information presented above, Montague has satisfied the requirements of OAR 345-021-0010(1)(e).

E.11 REFERENCES

Bonneville Power Administration (BPA). 2017. *Categorical Exclusion Determination; Slatt Substation Expansion (Interconnection Request G0238-G0239)*. June 2.

Colby, Michelle, Gilliam County Planning Director. 2017. Personal communication (telephone) with Brittany Sahatjian, HDR. October 4.

Energy Facility Siting Council (EFSC). 2017. *Third Amended Site Certificate for Montague Wind Power Facility.* July 11.

Kudlemyer, Scott, Oregon Water Resources Department (OWRD). 2017. Personal communication (telephone) with Brittany Sahatjian, HDR. October 20.