1.1.1. Summary of Alternatives

The Kittitas County CESP Project Programmatic Environmental Impact Statement provides a comparative evaluation of alternative courses of action in siting and permitting clean energy alternatives in the county. The energy uses being studied include solar, wind, geothermal, small modular reactors (SMRs), and battery energy storage systems (BESS). Three alternatives were selected for study to evaluate suitable areas within the county for energy siting, identifying environmental impacts of energy uses, and evaluating appropriate mitigation and minimization measures at a programmatic level.

- Alternative 1, the No Action Alternative,
- Alternative 2, Reassess Solar and Wind Overlays, Assess Potential BESS Overlay,
- Alternative 3, Assess Potential Geothermal and Small Nuclear Overlays.

It is intended that after studying the selected alternatives in the Draft Environmental Impact Statement (DEIS), a Preferred Alternative will be selected from the range provided for the Final EIS (FEIS). The Preferred Alternative may be one of the studied alternatives as written, or a combination of elements from the alternatives analyzed in the DEIS. Based on the Preferred Alternative, the Kittitas County Comprehensive Plan; land use and zoning maps; and Kittitas County Code (KCC) may be updated and/or amended to reflect the Preferred Alternative.

The following provides a detailed description of each of the selected alternatives.

1.1.1.1. Alternative 1: No Action Alternative

Alternative #1, **No Action Alternative**, as required under SEPA, assumes that energy development for solar, wind, BESS, geothermal, and SMRs would occur within Kittitas County based on the current development regulations with no changes. The current Kittitas County Code sections relating to energy development are KCC Chapter 17.61 Utilities, KCC Chapter 17.61A Wind Farm Resource Overlay Zone, KCC Chapter 17.61B Small Wind Energy Systems, and KCC Chapter 17.61C Solar Power Production Facilities. The processes and development code standards currently established in Kittitas County would be carried forward and any uses not permitted by the County could be done through the permitting process established by the Washington State Energy Facility Site Evaluation Council (EFSEC). The No Action Alternative takes into consideration the energy uses permitted to date, impacts observed so far, and how these processes would be carried forward.

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1.1.1.1.1. Current Kittitas County Permitting Procedures

Solar Permitting

In KCC 17.61C.020, large scale solar facilities fall under the County's definition of "Solar Power Production Facilities" or "SPPF".

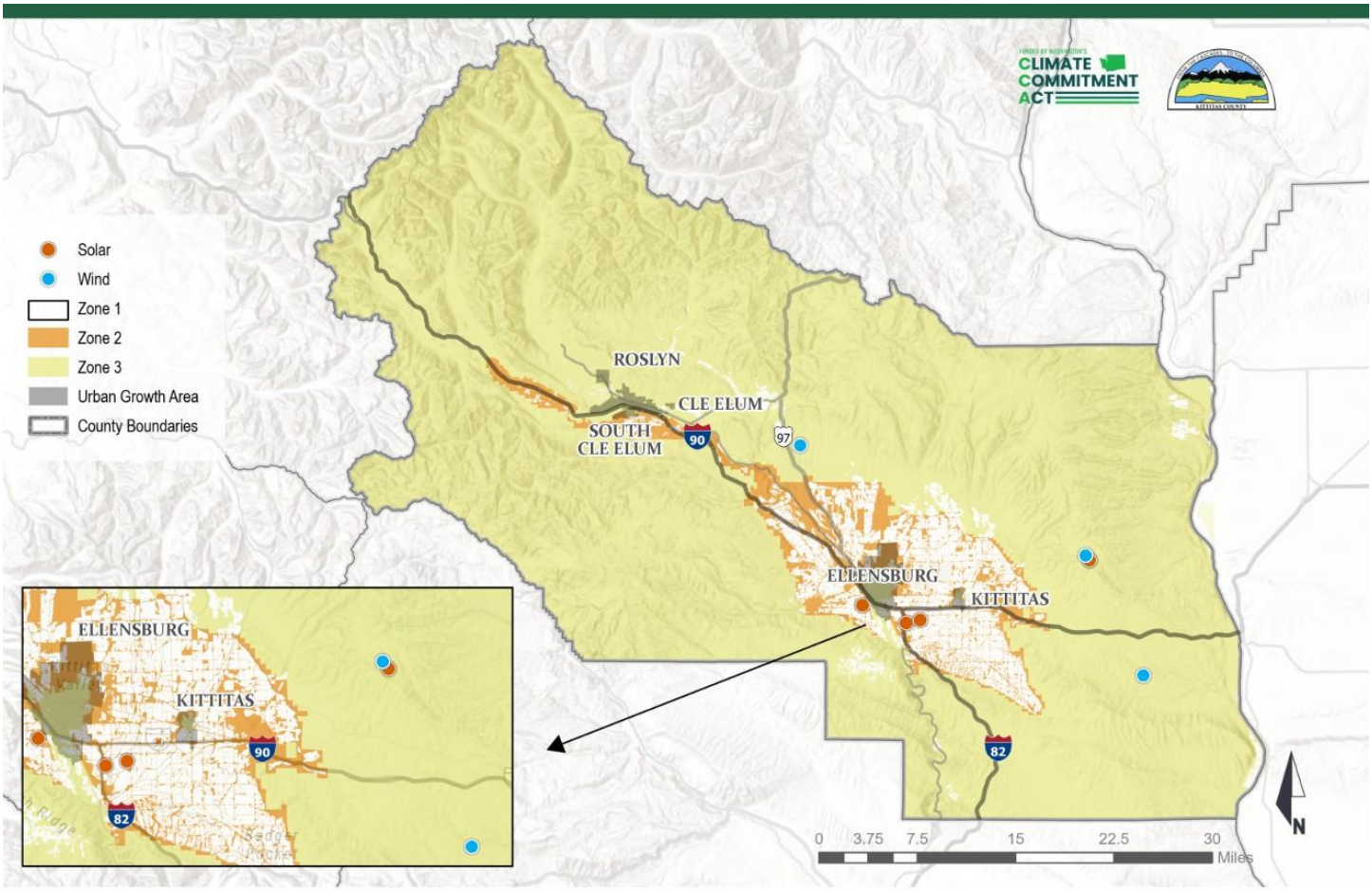
> ***"Solar Power Production Facilities" or "SPPF"*** *means a utility on an area of land designated for the purpose of producing photovoltaic electricity with a nameplate capacity of over one hundred kilowatts (100 KW) and includes, but is not limited to, an assembly of solar panels and solar equipment that converts sunlight into electricity and then stores and/or transfers that electricity. Solar Power Production Facilities may include mechanical buildings and other uses that are typical to an SPPF, however offices and other commercial uses are prohibited.*

Kittitas County permits Solar Power Production Facilities through its solar overlay zone in KCC 17.61C.040, dividing the county into three solar overlay zones. The intent of the current solar overlay zones is to preserve prime agricultural lands in the county for resource protection. As such, the current solar overlay zones are designated by their agricultural designation and local irrigation district boundaries.

- Solar Overlay Zone 1 consists of lands designated by the Washington State Department of Agriculture as agricultural land uses on its agricultural land use geodatabase.
- Solar Overlay Zone 2 consists of lands that are not designated by Washington State Department of Agricultural as agricultural land uses on its agricultural land use geodatabase.
- Solar Overlay Zone 3 consists of lands that are not designated by Washington State Department of Agriculture as agricultural land uses on its agricultural land use geodatabase and are outside of irrigation district boundaries.

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Figure 1: Solar Overlay Map



Source: Kittitas County and Kimley-Horn, 2026

The process of how SPPFs are permitted in the county depends on which zone it is located in.

In Solar Overlay Zone 1, Solar Power Production Facilities are prohibited except for the following areas with a conditional use permit:

- Lands that do not contain soils suited for agricultural uses as described by the United States Department of Agriculture and Natural Resource Conservation Service Soil Survey of Kittitas County Area, Washington
- Lands that have been converted to roads, parking lots, runways, or similar uses prior to October 2, 2018.
- Rooftops of buildings existing prior to October 2, 2018.
- Airport Safety Zones.
- Powerline Rights-of-Way.
- Highway Interchanges.

In Solar Overlay Zone 2, Solar Power Production Facilities require a conditional use permit.

In Solar Overlay Zone 3, the approval process for a Solar Power Production Facility depends on its generating capacity. The generation threshold for the placement or construction of an SPPF is 7 megawatts.

- If the placement or construction of an SPPF is greater than 7 megawatts, a conditional use permit approval is required.
- If the placement or construction of an SPPF generates up to 7 megawatts, an administrative conditional use permit approval is required.

As part of the development standards for SPPFs, the County currently requires:

- At least 8 feet screening and/or fencing
- Glare shall not impact surrounding properties, wildlife, or livestock, and if located in an airport overlay zone, glare resistant panels are required.
- Shielded or downward-facing lighting
- Meet all minimum zoning setbacks for the underlying zoning, or 25 feet, whichever is greater.
- Height limit of SPPF equipment of 20 feet from grade at the base to its highest point during operation.
- Compliance with all applicable local, state, and federal regulations, including but not limited to safety, construction, electrical, communication, and fire requirements; this includes related solar equipment.
- Construction or maintenance activities shall not result in the introduction or spread of noxious weeds and other undesirable weed species.
- A Kittitas County Fire Marshal-approved fire management plan.
- The manufacturers' or installers' identification and appropriate warning signage shall be posted at the site in a clear and visible manner at the entrance and along any fencing.
- A sign to identify the owner of the facility and provide a 24-hour emergency contact and phone number.
- Solar equipment compliance with the most current edition of the National Electrical Code.
- Any water rights associated with the property shall be retained through the life of the facility.

Wind Permitting

In Kittitas County Code, "wind farm" is a type of "major alternative energy facility" under KCC 17.61.010 and is subject to KCC Chapter 17.61A.[1]

> ***"Wind farm"*** *means a single wind turbine exceeding 120 feet in height above grade or more than one wind turbine of any size proposed and/or constructed by the same person or group of persons on the same or adjoining tax parcels. The term does not include turbines mounted to existing structures principally used for other lawful purposes (such as buildings or electric utility poles) provided the nacelle does not extend more than 20 feet above the uppermost portion of the structure to which it is mounted or attached.*

In Kittitas County, wind farms are a permitted use in a wind farm resource overlay zone through a wind farm resource development permit and a development agreement as provided under KCC 15A.11. As part of the

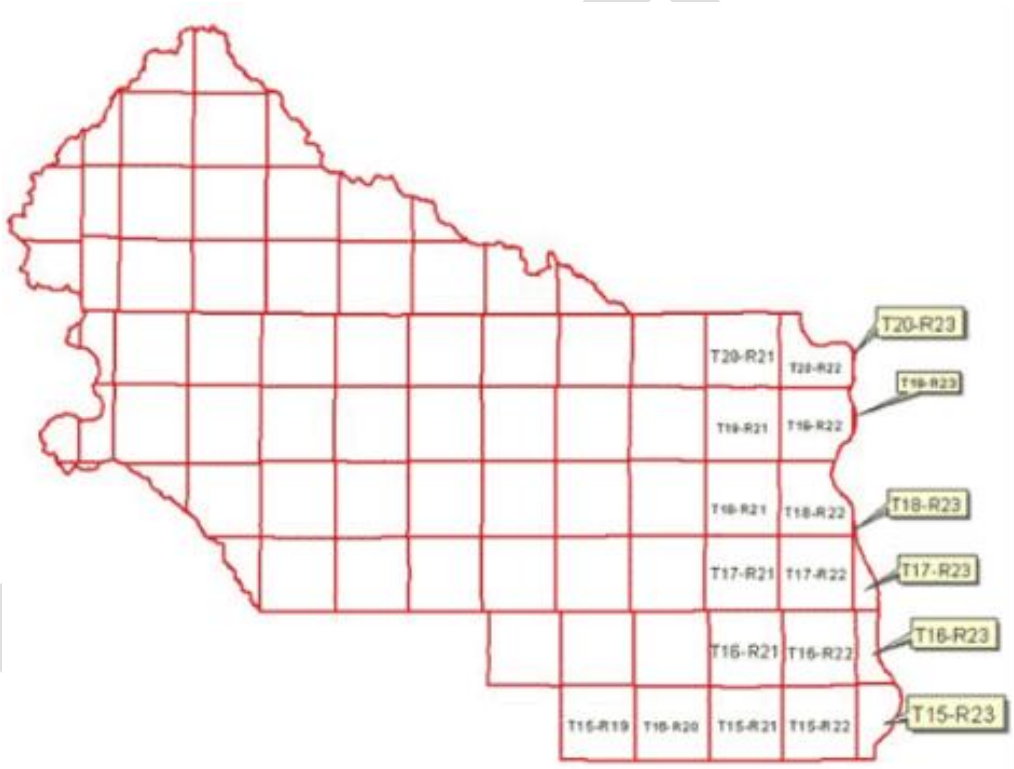
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development agreement, there must be the development standards applicable to the development of a specific wind farm, which may include, but are not limited to:

- Densities, number, size, setbacks, and location of turbines;
- Mitigation measures and such other development conditions as deemed appropriate by the Board of County Commissioners to be necessary including measures to protect the best interests of the surrounding property or neighborhood or the county as a whole; and
- Other development standards including those identified in KCC 15A.11.020(E) and RCW 36.70B.170(3).

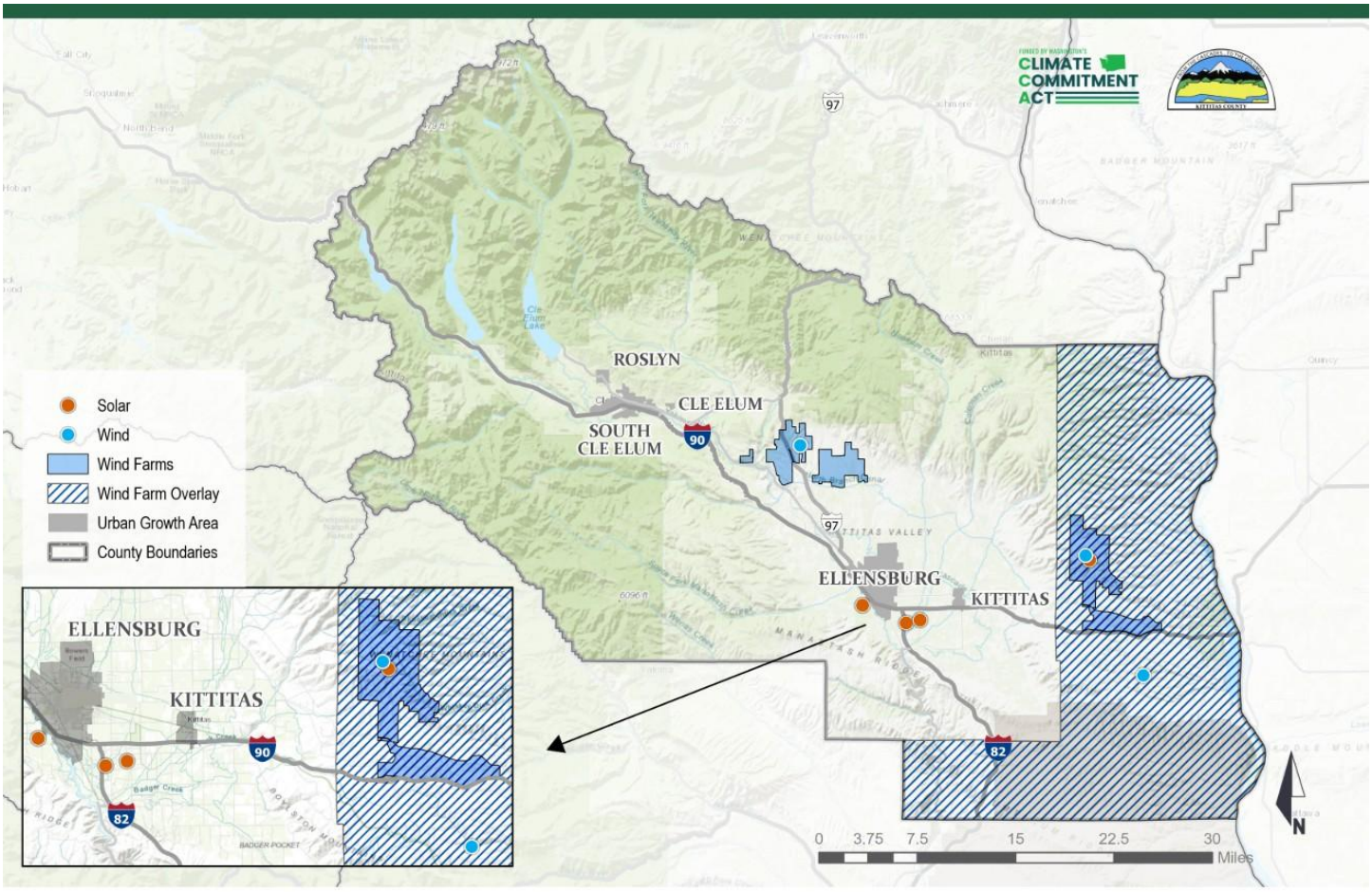
Under KCC 17.61A.035, Kittitas County provides pre-identified areas for siting where environmental review and public processes have previously occurred to expedite the siting of proposed wind farm facilities.

Figure 2: Pre-Identified Areas for Wind Farms



Source: KCC 17.61A.035

Figure 3: Wind Farm Overlay



Source: Kittitas County and Kimley-Horn, 2026

For wind farms sited in the pre-identified areas, the following siting standards apply:

- A minimum 1/2-mile setback from existing structures at time of application.

Additional analysis may include the following materials:

- Wildlife impact analysis,
- Noise impact analysis,
- Visual impact analysis, and
- Traffic impact analysis.

Battery Energy Storage System (BESS) Permitting

Currently, there are no explicit references to BESS technology in the Kittitas County Code. Potential definitions that BESS may fall within include the following definitions under KCC 17.61.010:

> ***"Associated facility" or "associated facilities"*** *means a land use whose principal purpose involves the distribution, processing,* ***storage****, handling, or other related and supporting activities necessary for a special utility, not including administrative activities or offices.*

BESS may be an "associated facility" as the technology is intended for the purpose of energy **storage** or a "utility" due to its relationship with electricity. BESS may also be a "special utility" or "special utilities" which provides a list of energy uses including "minor alternative energy facility."

> ***"Special utility" or "special utilities"*** *shall mean the following:*
> *1. Natural gas, synthetic fuel gas, or liquefied petroleum gas pipelines operating at a pressure which results in a hoop stress of 20 percent or more of the specified minimum yield strength;*
> *2. Electrical transmission lines exceeding 115,000 volts;*
> *3. Electrical substations;*
> *4. Cellular, mobile, or fiber-optic telecommunication facilities;*
> *5. Geothermal power facilities;*
> *6. Minor thermal power plant facilities;*
> *7. Minor alternative energy facilities.*

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> ***"Utility" or "utilities"*** *means the supply, treatment, and distribution, as appropriate, of gas, gas meter stations, municipal domestic and irrigation water, sewage, storm water, electricity, telephone, fiber-optic, and cable television. Such utilities consist of both the service activity along with the physical facilities necessary for the utilities to be supplied, except for associated facilities and special utilities as defined herein. Electric vehicle infrastructure, as provided for in Chapter 17.66, is not a "utility" or "utilities".*

Additionally, if battery storage use is related to solar energy facilities, BESS may fall under the County definition for "solar equipment" in KCC 17.61C.020:

> ***"Solar equipment"*** *refers to items including a solar photovoltaic cell, module, panel, or array, or solar hot air or water collector device panels, lines, pumps,* ***batteries,*** *mounting brackets, framing, and possibly foundations or other structures used for or intended to be used for collection of solar energy.*

The current Kittitas County permitting process for BESS depends on whether it is a standalone energy storage facility or if it is equipment associated with another energy use such as solar or wind energy generation facilities. Currently, there are pathways within existing solar permitting processes for BESS to be treated as part of an "SPPF" if it falls under "solar equipment" or through the definition of "associated facilities."

For standalone BESS facilities, Kittitas County has not established a clear permitting precedent. Applicable siting and permitting requirements would depend on the definition applied, the zones where that use is allowed, and the corresponding review process. Table X below shows how current BESS siting and permitting may differ based on the applicable definition.

Table 1: BESS Definitions and Related Siting

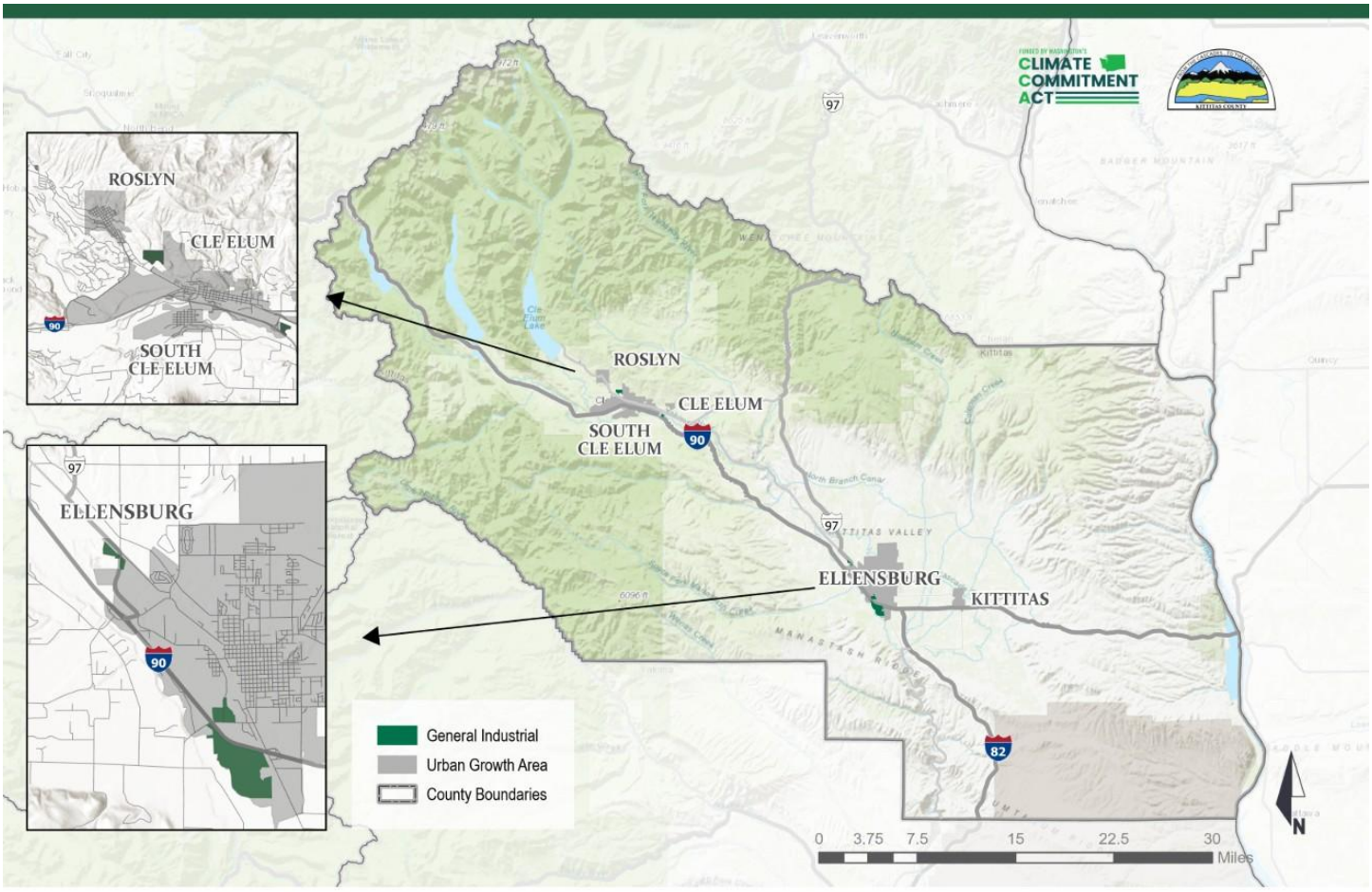
Definition	Siting Locations	Permitting Process
Associated Facility	General industrial zone	Conditional use
Special Utilities	All zoning districts	Conditional use
Utilities	All zoning districts	Administrative review
Solar Equipment	Solar overlay zones	See Solar Permitting Process

Source: KCC 17.61.020 and 17.61C.040

If BESS is sited in the general industrial zone, Figure X below shows the location of these zones in the county.

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Figure 4: General Industrial Zones



Source: Kittitas County and Kimley-Horn, 2026

For their permitting review process, special utilities and associated facilities receive review through a hearing examiner, the process of which is laid out in KCC 17.61.030.

Geothermal Energy Facility Permitting

Currently, geothermal energy facilities are defined in KCC 17.61.010 as “Geothermal power facilities”.

> ***"Geothermal power facility" or "geothermal facility"*** *means a facility used to produce electricity by extracting and converting the natural thermal energy of the earth. The term does not include ground-source heat pumps or the direct use of geothermal energy for the heating of buildings located on or adjacent to the subject property.*

Procedurally, geothermal power facilities are permitted under the special utility process. This means that such facilities may be sited as a conditional use in all zoning districts.[2]

For their permitting review process, “special utilities” receive review through a hearing examiner, the process of which is laid out in KCC 17.61.030.

Small Modular Reactor Permitting

In Washington State, the type of nuclear reaction, nuclear fission or nuclear fusion, determines the permitting authority. For fission nuclear power facilities, they are required to receive certification through the Washington State EFSEC. For nuclear fusion, facilities may receive certification through EFSEC, but it is not required.

> ***"Major thermal power plant facility" or "major thermal power plant facilities"*** *means an electrical generating facility that utilizes nuclear or fossil fuels with output exceeding 10 megavolt-amperes.*

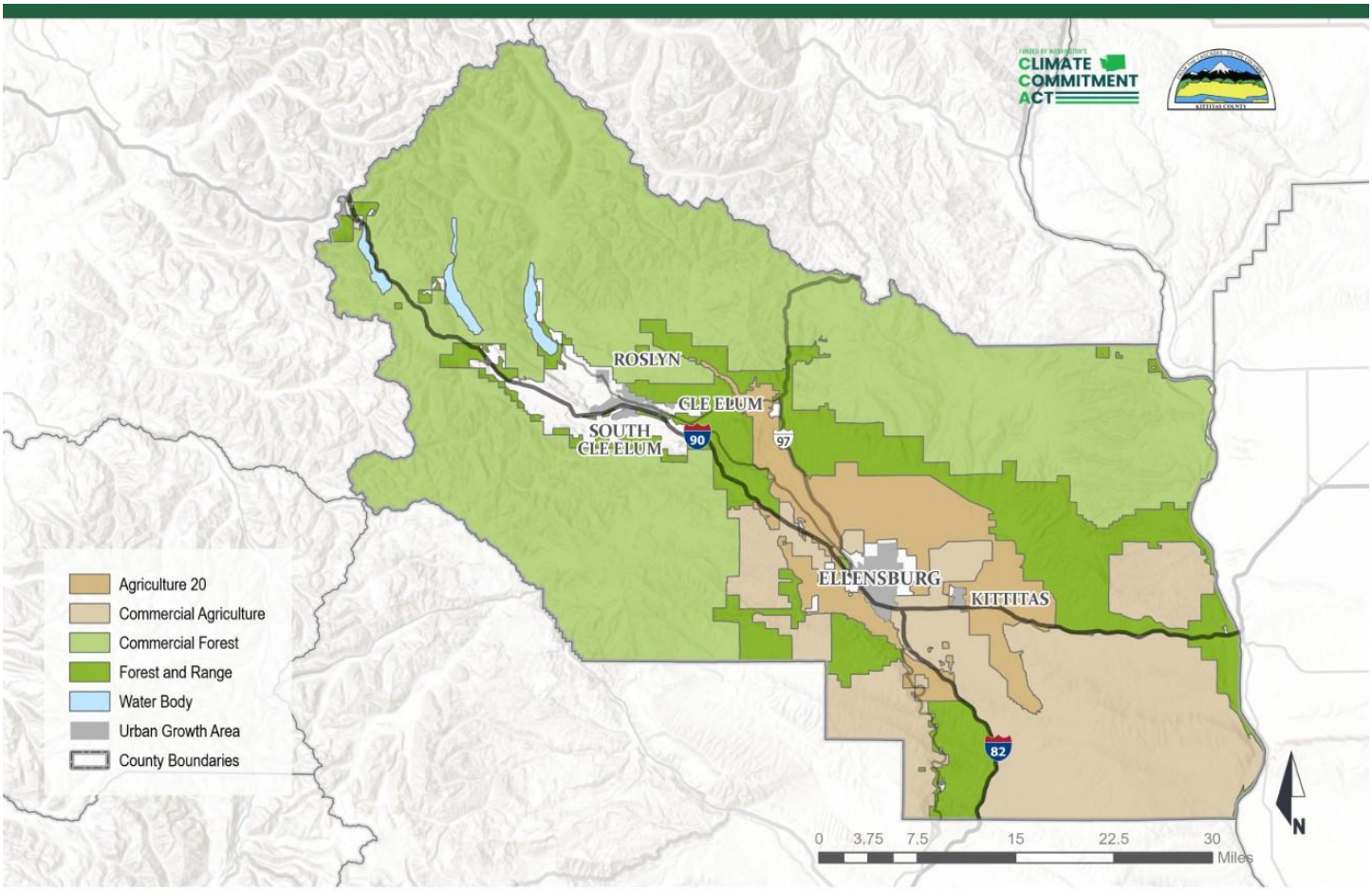
Currently, Kittitas County does not have an explicit reference to SMRs, small nuclear facilities, or fission or fusion nuclear power facilities in Kittitas County Code. The most relevant definition in existing code is "major thermal power plant facility" or "major thermal power plant facilities" in KCC 17.61.010.

There is no current precedent in Kittitas County for small nuclear facilities or SMRs using the “major thermal power plant facility” definition; however, this definition may be referenced by EFSEC during the land use adjudication procedures if an SMR using nuclear fission is proposed, or by the County if an applicant proposes a nuclear fusion project at the County permitting level.

If an SMR is proposed in Kittitas County as falling under the definition of “major thermal power plant facility,” under current Kittitas County Code they may be authorized as a conditional use in Agriculture-20, forest and range, commercial agriculture, and commercial forest zones.[3]

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Figure 5: Agricultural and Forest Zones



Source: Kittitas County and Kimley-Horn, 2026

1.1.1.2. Alternative 2: Reassess Solar and Wind Overlays and Assess Potential BESS Overlay

Alternative 2 re-evaluates locations suitable and appropriate for utility scale solar and wind along with current permitting procedures. Current overlay locations (KCC 17.61C.030 Solar Power Production Facilities Overlay Map and KCC 17.61A Wind Farm Overlay Zone) may be modified based on findings. In addition, the EIS will assess potentially significant environmental impacts associated with BESS to identify suitable locations in Kittitas County for a potential battery energy storage facility overlay and related development standards. Where deemed appropriate, County permitting processes for utility scale solar, wind, and BESS may be modified to streamline the local permitting pathway and provide clear development standards with known mitigation measures.

1.1.1.3. Alternative 3: Assess Potential Geothermal Energy and Small Nuclear Overlays

Alternative 3 evaluates potentially significant environmental impacts for geothermal energy facilities and small modular reactor facilities.[1] The impacts associated with geothermal energy and SMRs are assessed to determine suitable and appropriate locations in Kittitas County for geothermal energy facilities and SMR facilities. Where deemed appropriate, additional energy overlay zones and County permitting processes may be modified to streamline the local permitting pathway and provide clear development standards with known mitigation measures.

1.1.1.4. Preferred Alternative

After the DEIS is issued, a Preferred Alternative will be identified for the Final EIS (FEIS) from the range of alternatives studied. The Preferred Alternative may be one of the studied alternatives as written or a combination of elements from the alternatives analyzed in the DEIS. Based on the Preferred Alternative, Kittitas County may amend the Comprehensive Plan, land use and zoning maps, and County Code.

[The Preferred Alternative section is a placeholder to be completed for the Final EIS]

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[1] As of June 2025, there is no Washington State definition for geothermal energy facilities or small modular reactors.