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Working to protect and restore Western Watersheds

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Office of Electricity Delivery & Energy Reliability
Room 8H-033
U.S. Department of Energy
1000 Independence Avenue, SW
Washington, D.C. 20585

RE: West-wide Energy Corridor Preliminary Draft Corridor Maps

To Whom it May Concern,

The following comments are on behalf of Western Watersheds Project regarding the federal west-wide energy corridor project. These comments are in response to the publication of the draft corridor maps, but can also be applied to the as yet unpublished DEIS and the entire process.

When deciding where these corridors are to be put, it is important for the government to take every care to limit the environmental impact and harm of these corridors. The government should use existing corridors to the maximum extent possible, to limit the total amount of new disturbance through the west. Running these corridors along already existing highway systems would be one good way to utilize already cleared areas and limit the overall impact on the land.

Another way to minimize impacts of these structures is to bury anything that can be buried below ground to limit the impacts of towers and transmission lines on wildlife species and scenic values. Tall structures pose a threat to birds, including raptors, and low-flying aircraft alike. They provide perches for predators in areas where there are no natural perches, and allow predators an unnatural advantage in finding prey species—thus disturbing the natural balance. They are also at increased risk of damage from flying debris in wind storms, etc. The government should consider burying these transmission lines and anything else that can conceivably be buried as a viable and smart alternative.

The government should also consider using these corridors to combine and consolidate already existing transmission lines. Currently, hundreds of miles of pipelines and transmission lines are

tangling up western lands, fragmenting habitat, destroying scenic qualities, and causing an untold number of other impacts on wild species and vegetation. These utility corridors provide an opportunity to clear up some of this mess.

Has the government considered using flow batteries as a means to store energy cheaply in communities, thus reducing the overall need for various areas to be connected to an energy corridor at all? One example of such a system is found in Castle Valley, Utah, where in 2003 PacifiCorp and VRB Power Systems installed a 250 kW installation with an eight-hour storage capacity. The flow battery charges up during the night when energy demand is at its lowest, and then supplies the stored energy during the heat of the day when the demand is at its peak. This allowed PacifiCorp to utilize the existing energy infrastructure without having to construct any new transmission lines. There are dozens of other flow battery systems around the world, and it is proving to be a promising and effective technology. Investigating the use of flow cell batteries or similar energy-storing technologies to supply power to areas, as opposed to creating new corridors to transport increased energy hundreds of miles, is a worthwhile alternative for the government to consider.

Such energy storage systems also increase the energy productivity of renewables such as wind and solar (storing the excess energy when the supply exceeds demand and releasing it when the supply falls). Establishing renewable energy sources in various areas through the west and storing the energy for that locale is yet another alternative that the government should consider before the final decision on the west's energy needs. Will the government be favoring renewable energy sources over nonrenewable energy types?

When establishing corridors, it is important to consider the implications for the land through which they will be running. Corridors have the potential to open up new lands to energy (or other) development, placing wide swaths of habitat at risk, and greatly increasing degradation and fragmentation of habitats and important wild land areas. The government should place severe restrictions on any neighboring developments that occur alongside the corridors. A 3500' wide strip is a large area of impact, but the amount of potential development that could shoot off of these corridors has almost unlimited potential and poses a threat to the entire west. The government should make an effort to limit the number of important or sensitive/fragile habitat near the corridors. This is yet another reason that using the existing highway system would be beneficial.

Will these corridors become conduits used to transport toxic waste or other hazardous substances through the west? If so, or if the potential exists, this should be made clear from the outset and the impacts and potential effects should be analyzed. Will corridors be used to pipe water resources through the west?

It is important that no unnecessary corridors are created. For example, the map of corridors put out by the Wyoming Infrastructure Authority shows a tangle of lines throughout the southern portion of the state. Are all of these corridors necessary, or would it be possible to simplify and bundle them, thus increasing their efficiency while decreasing their environmental impact? A full range of alternatives must be assessed throughout this process, including maximizing the bundling of projects along routes which minimize environmental harms. Also, potential

widening of existing corridors - in lieu of new corridors - should be assessed.

Avoiding wilderness areas, roadless areas, national parks, designated scenic areas, and other areas where habitat, nature, and wilderness are valued highly by the public should be a priority for the government. Areas such as these are becoming more rare as the west's population is expanding, and the natural and wild state of these areas should continue to be protected.

The installation of these corridors and infrastructure has the potential to be incredibly disruptive to the native wildlife, vegetation, and local populations. Noise, dust, vibrations, and a host of other disturbances will accompany the construction of these corridors. This construction (including clearing new areas for these corridors) also has the potential to be quite expensive. Choosing to place these corridors along already existing corridors or highway infrastructure would reduce the overall impact to wildlife and vegetation, as well as reduce the costs of transporting equipment, clearing and altering the lay of the land, and other construction costs. Has the government conducted any research into how to minimize the overall impact of installing these corridors?

Will ask that the government consider the total cost effectiveness and efficiency of such a system. What will the annual maintenance costs be? Energy transport is not completely efficient, and the longer distance energy is transported, the more energy is lost. How much energy will be lost as it is transported across the west? The government should consider alternatives which would reduce this energy loss, such as establishing renewable energy sites to provide nearby energy to areas. What is the cost of widening existing corridors (such as along the highway system) as opposed to the cost of pushing into completely new areas?

It is also important that these corridors remain under public oversight, and are not controlled by industry. The energy these corridors will transport will impact the lives of everyone who lives in the west, and it's important to keep the public involved and informed. To what extent has different energy corporations been consulted regarding the creation of this corridor? What projects (energy development, power plants, or other) in the foreseeable future has the government taken into consideration during the planning of these corridor lines? (for example, the Frontier line, which has the support of California, Utah, Nevada, and Wyoming.) Does this plan take into account any future energy projects, such as the construction of power plants (coal, nuclear, hydroelectric, etc.) or the construction of other infrastructure (transmission lines, water/fuel pipelines, etc)?

For example, during the creation of these draft corridor maps, was there any consultation with TransCanada about their Northern Lights initiative? This initiative is in the planning stages, although TransCanada has already applied to BLM to begin siting and permitting activities to establish two inland lines. One line will run through Wyoming, Idaho, and Nevada, and possibly then into Arizona, while the other will run from Montana through Idaho and Nevada and possibly terminating near Los Angeles. Another line will run energy from Alberta's oil sands into the US through Idaho, Washington, and into Oregon and possibly beyond. These lines are a major project cutting through almost the entire west, disturbing huge tracts of land and impacting wildlife and vegetation species across this entire half of the United States. It is essential that the government regulates, coordinates with, and monitors TransCanada's project, as well as that of

any other company, to limit the total amount of destruction.

The preliminary draft corridor maps shows the location of corridors only on federal land. Will private landowners be compensated, or will the government condemn the land? Is it planned to run corridors through tribal lands, and if so, has the government already entered into negotiations with these tribes? How will other legal matters, such as rights of way, water rights, etc., be resolved along these 3,500 foot corridors?

Even if the government takes every precaution, these corridors will have lasting and damaging impact on public lands in the west. This is why it is important to consider environmental impacts when creating these corridors and determine what will have the least adverse impact.

These corridors are just another chapter in the long story that has been the fragmentation of western lands. Corridors must not disturb fragile habitat or habitat which is required by sensitive, threatened, or endangered species. Areas where wildlife can cross unimpeded should be present and numerous. Such cross-overs should be as undisturbed as possible so as to provide cover from predators who will find the open area of the corridor a place for easy prey. The government should take into account game migration routes, wintering habitat, and mating activities of wildlife in order to limit the amount of disruption and disturbance these corridors will cause.

Will any of these corridors run through Horse Management Areas? Placement and construction of these corridors could potentially impede the free movement of herds, especially if these corridors include any fencing, roads, piping, etc. Corridors would remove available forage for horses and increase the already rampant fragmentation present in HMAs. The corridors could also increase the interaction and conflict between wild horses and people (especially during construction), as well as recreationalists and maintenance workers. The government should make every effort to avoid HMAs and to respect the free movement of our nation's wild horses.

Migratory bird routes as well as other bird habitat should also be taken into consideration when planning the location of corridors, as transmission lines increase the risk of bird electrocutions and collisions. This is particularly important along wetlands, valleys, and narrow passes. Areas around wetlands, which provide habitat for many different types of water fowl, are a particularly sensitive area as birds frequently land in these areas while migrating or as permanent residents. Placing towers in these areas would also increase the predation in the area by predatory birds as new perches are provided by the towers. Significant baseline information must be gathered on biological and other values -- such as the use of potential corridor areas and the areas in which they may spawn development as migration corridors for birds, bats, or other biota.

Construction of corridors also has the potential to damage or disrupt the flows of springs, seeps, or other water sources. In an area as arid as the west, degradation of these water resources is a serious issue. Native wildlife and vegetation are dependant on these sources for their water needs. Construction of towers or facilities near a spring or seep can have a high level of impact (by disrupting flows, contaminating water, etc. -- what toxic or hazardous substances may be involved in all phases of development or operation of these corridors?). The government must ensure that these scarce resources are not damaged by the placement and construction of corridors.

The construction of these corridors will contribute immensely to the rapid spread of exotic and invasive vegetation across the west. These weeds grow easily wherever the natural vegetation, which usually covers the soil and protects it from invasion, is disturbed. Once established, weeds are almost impossible to remove permanently. The disturbance to the soil and natural vegetation that will occur as a result of the construction and maintenance will turn these energy corridors into weed corridors as well. The connectivity of the corridors has the potential to allow weeds to invade into areas that have so far been untouched.

What plans does the government have to rehabilitate construction areas? For example, construction material yards will lose their native vegetation, have their soils compacted, and increase the amount of wind and water erosion while leaving these areas at an increased risk of weed invasion. Transporting materials, labor, and equipment in and out of construction areas will also have their own set of impacts. What sort of roads will be installed along these corridors? Will access to these roads be restricted from the general public? If not, who will be authorized to utilize these roads?

Weeds, especially cheatgrass, pose an immense fire hazard. Cheatgrass has the potential to completely take over a vegetative community, choking out any other vegetation. It dies off early in the growing season, and so during the summer months is dry, brittle, and completely incendiary. The government will be responsible to control these weeds, and will be responsible for the host of other problems that accompanies fire control and prevention measures. For example, using chemicals to kill weeds requires exposing the environment, species, and watershed area to a toxic substance which can be the source of immense damage to environmental and human health. Manual weed control requires much human effort, machinery, and can cause even more disturbance, leading to erosion, disturbance, and, in some cases, more weeds. The government should carefully consider how it plans to control these weeds and the increased risk of fire.

The west is covered with areas, structures, and artifacts of significant cultural value. These cultural resources must be protected as these corridors expand. Establishment of energy corridors through previously undisturbed areas could cause physical damage to artifacts and sites. Opening these areas up could expose cultural resources to looters. The increased fire risk that will occur as a result of the soil disturbance and subsequent weed invasion will place these cultural resources at even more risk of damage. Development spinning off of these corridors into previously unmolested areas will perhaps pose the greatest threat of all, as this development has the potential to disturb large areas of land throughout the west. Protection of cultural resources is yet another reason to seriously consider using the already established corridors of the west's highway system for these energy corridors, instead of disturbing and opening up new areas.

Creating these energy corridors will create an irresistible pathway for ATV, motorbike, and other Off Highway Vehicle (OHV) users into previously unexplored territory. Expanding motorized recreation throughout the west has caused immense problems. These vehicles damage cultural

sites, compact soil; kill off native vegetation, assist in the spread of weeds, increase the erosion potential of a site, disturb wildlife, and degrade the beauty of the natural landscape. If these corridors are punched through wild land, OHV recreationalists will have an opportunity to enter into previously inaccessible areas and cause even more damage. User-created OHV trails can spurt off of the main corridor, and enter into endangered wildlife or vegetation habitat, fragile watersheds, or scenic areas. How will the government control these recreationalists across thousands of miles of corridor? It will be incredibly difficult, and is yet another reason that the government should avoid creating completely new corridors.

Because there is almost no way that this project can be carried out without doing a sizeable amount of environmental damage, what mitigation efforts will the government undertake to promote environmental good? Some possible mitigation efforts could be: purchasing large tracts of land for preservation and to make up for habitat for species such as sage grouse or pygmy rabbit that has been lost or fragmented by this proposed development; funding research into mitigating the impacts of corridors/dams/transmission lines/other energy facilities on the environment and wildlife; funding energy conservation initiatives in communities or areas impacted by the corridors; funding fish and wildlife habitat restoration; investing in fuel cells, flow batteries, or research on energy storage; funding increased research for renewable energy; investing in renewable local energy resources for local needs - especially in the areas of the communities that may be impacted.

Thank you,

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