

4.2 Community Impacts

Communities impacted by a variety of electricity-producing technologies struggle with the local costs of energy development while the primary benefits (i.e., electricity) are generally exported. These projects do, however, benefit communities that house them through increased jobs, greater tax revenue, and, at times, investments by energy developers directly into the community. As wind energy continues to post record growth in Wyoming, some communities are experiencing more collector or transmission lines, turbines that affect viewsheds, an uneven distribution of payments among landowners, as well as noise, light, and wildlife disturbances.

Public costs of wind energy projects include those associated with road improvement or maintenance from increased trucking or increased stress on community services, such as schools and law enforcement, which occurs when there is an influx of construction workers and their families. To address these costs, any project greater than 30 turbines must go through the industrial siting permitting process, and the Industrial Siting Council will assess the project's impacts and can choose how to distribute impact assistance funds to counties (see Section 3.2). In addition, many counties' bonding requirements include compensation for road damage.

Economic Impacts

Wind energy development brings economic gain to a community during construction through direct impacts, such as job creation, and indirect impacts, such as increased business for motels/hotels, restaurants, and other local businesses. Jobs demanded during the construction phase of a wind energy facility include truck drivers, crane operators, and personnel for earth moving, cement pouring, management, and other support tasks. After construction, wind energy facilities also require full-time employees, and there are typically four to eight jobs created per 100 MW of installed capacity.²⁷

Social Impacts

Visual impacts of wind turbines are generally the largest source of contention within communities. Landowners adjacent to wind projects who are not directly

receiving economic benefits, in particular, may object to their presence. Neighbors to wind facilities may be particularly sensitive to a drop in property value if they are sited near a wind development, and their objections can lead to project delays or litigation.

Mitigating Community Impacts

Because of possible impacts on others in the area, landowners who are considering a commercial wind project may wish to communicate with neighbors and local community members about the possibility of the development early in the process. It is also important that, when assessing the impacts of wind energy projects, consideration is given not only to the landowners who lease the land for the project but also to other affected but uncompensated landowners. Landowner wind energy associations (see Section 2.3) are one way to address these concerns.

When seeking to mitigate visual impacts on a community, it is possible to evaluate the importance of a landscape to the surrounding community in advance. It is also important to integrate the project into the surrounding landscape and consider landscape elements in wind project design. Additional mitigation strategies for visual impacts include:

- Designing for visual order and avoiding clutter;
- Constructing facilities away from ridgelines and steep slopes;
- Clustering turbines and providing breaks in arrangement;
- Using color treatment on towers to reduce visual impact; and
- Burying lines and cables to minimize surface disturbance.²⁸

Conclusion

This guide outlines the process of commercial wind energy development on private lands and provides landowners with a reference for some considerations that should be taken into account when contemplating wind energy development on their land. When engaging in the commercial wind development process, landowners should consult additional resources (see Appendix I) and seek knowledgeable legal counsel.