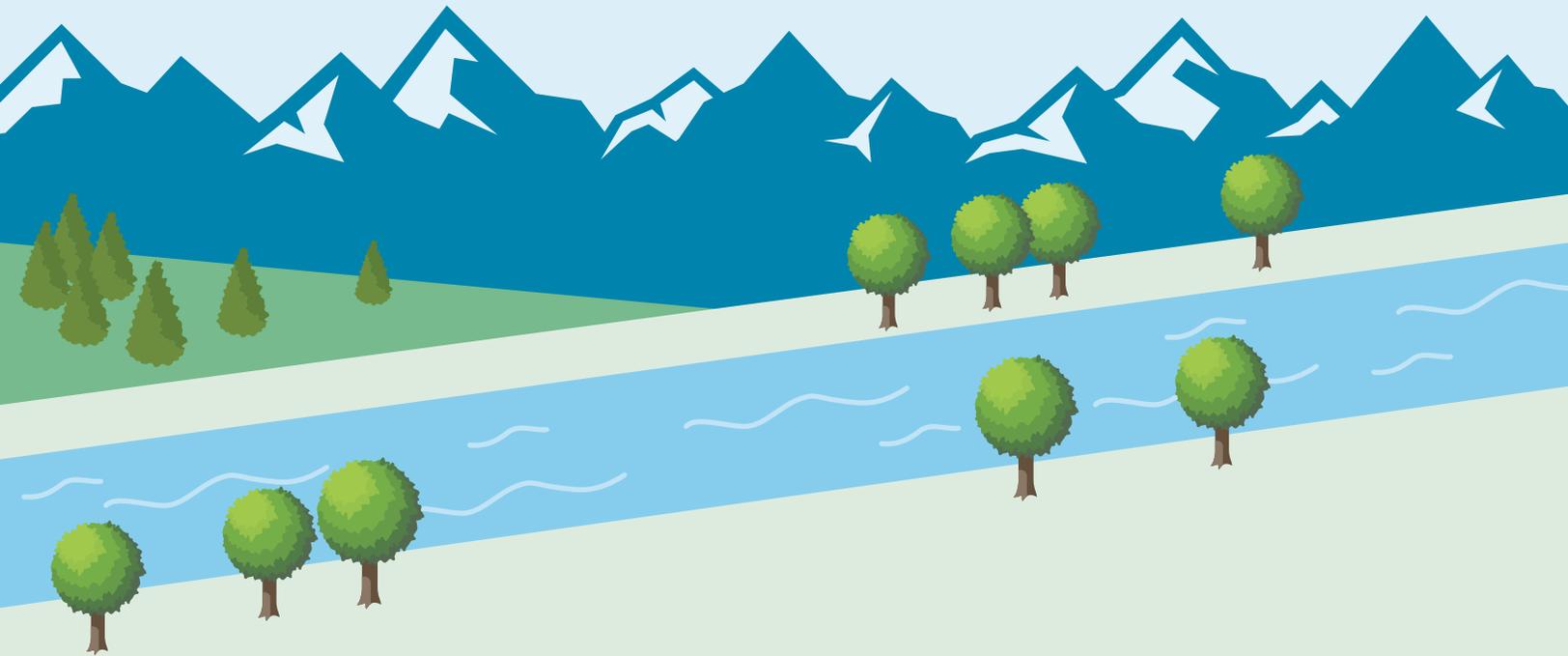




FACT SHEET | Energy Recovery Hydropower



Recent policy changes have supported the development of small hydropower in Colorado.

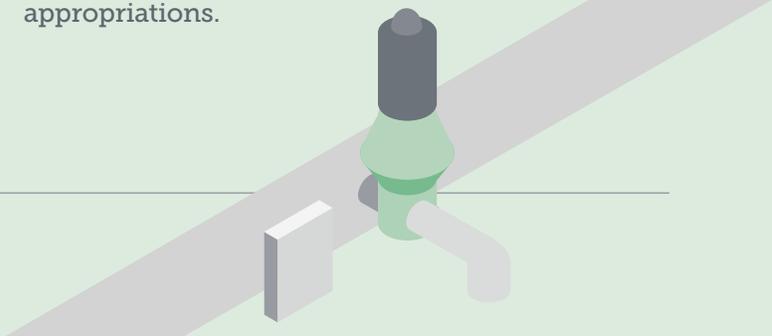
Energy Recovery Hydropower is a type of small hydropower that utilizes existing, pressurized pipelines. It is eligible for rapid regulatory approval, making it the most economically feasible type of new hydropower. Energy recovery hydropower has been the focus of the Colorado Energy Office's (CEO) recent program efforts.

Recent changes in federal policy have enabled the development of small hydropower:

► **Federal regulatory improvements.** In August of 2013, Congress passed the Hydropower Regulatory Efficiency Act, legislation introduced by U.S. Rep. Diana DeGette (Denver, CO), making it possible for

"qualifying conduits" to complete Federal Energy Regulatory Commission (FERC) approval in 60 days.

► **New federal incentives.** In 2014, Congress provided appropriations for the first time for the "Section 242" program, a Department of Energy program that provides direct cash incentives for new small hydropower generation built using existing infrastructure. Payment amounts have ranged from 0.8 to 1.5 cents/kWh, depending upon program participation and congressional appropriations.



Colorado state programs and policies that support small hydropower include the following:

- ▶ **Hydro project resource assessments:** Colorado has completed small hydro resource studies estimating approximately 50 MW of potential new energy recovery hydropower available in Colorado, roughly evenly split between municipal and agricultural project types.
- ▶ **Streamlined state electrical inspection.** In 2014, the Colorado Legislature passed legislation which created a new process to simplify electrical inspection: a one-page form signed by a Colorado-registered Professional Engineer can certify compliance with electrical standards.
- ▶ **Site assessment and federal regulatory assistance.** In 2016, CEO began a program to aide municipalities in completing energy recovery hydropower site assessments and in preparing qualifying conduit applications for submission to FERC.
- ▶ **Grants for municipal hydropower projects.** The Colorado Water Resources and Power Development Authority (CWRPDA) provides \$15,000 matching grants for feasibility studies, permitting, and final design activities for small hydropower projects developed by local governments.
- ▶ **Low interest loans for municipal hydropower projects.** In addition to providing grants, CWRPDA also provides 2% interest, 30-year loans, up to \$5 million, to local governments developing small hydropower facilities, with no funding match requirement. Local governments seeking funding in excess of



\$5 million may obtain funding through the Colorado Water Conservation Board, which offers loan terms comparable to CWRPDA loan terms.

- ▶ **Financial and technical assistance for agricultural hydropower development.** The Colorado Department of Agriculture provides grant funding to Colorado agricultural producers to help install small net-metered hydropower projects (up to 100 kW) at new and existing irrigation systems.

Additional Information

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