

Hydro power update (Ruth Fogg, 12/1708) :

Some Options:

1. Jim Sysko's original design: 12" pipe from Interface Dam to Abbot Museum, 2 cfs, 17' head, 2.1 KW, \$8-10K, 18396 KWH, save \$3,311/yr (at current \$.18 electricity charge).
2. Extend the above 12" pipe, Interface Dam to Grist Mill: 2 cfs, 45' head, 6.3 KW, \$25-30K, save \$ 9,933/yr.
3. 10" iron pipe (which was installed around 1903, working till 1964) which runs from a place near the new dam down to the Grist Mill: 1.4 cfs, 45' head, 4.2 KW, \$16-21K(maybe less), save \$6,231/yr.
4. 16" pipe, Interface Dam to Grist Mill: 3.4 cfs, 45' head, 10.7 KW, \$40-50K, save \$16,104/yr.
5. 24" pipe, Interface Dam to Grist Mill: 8 cfs, 45' head, 25.2 KW (8 cfs is near current winter capacity), \$120-125K, save \$37,929/yr.

Electrical Needs:

Dexter Utility District average hourly wattage used: 93 KW

Town of Dexter average hourly wattage used: 9 KW

School usage?

Town Office average wattage used: 3.4 KW

Library average wattage used: 2 KW

CMP issues:

1. CMP says that any generator tying into Bulk Power System (BPS) needs FERC regulation compliance. Tying into a residential distribution site and using net-metering is **not** considered a BPS.
2. Under 25KW generators do not require extensive CMP hookup costs. Above 25 KW require 3 phase considerations.
3. Up to 10 accounts within a 1 mile radius can use the electricity from a net-metered generator.
4. Max net-metered generator is 100 KW.
5. Max distance between poles is 150 ft.

Need to check FERC about <25 KW generator compliance rules.

Request for Proposal items:

1. Inlet Options: Mill pond, Interface Dam
2. Outlet Options: Abbot Museum, Grist Mill, Wayside Park, other to be determined downstream?
3. Standalone system or tied to Grid?
4. Other?

Questions for Jim Sysko:

Are the above scenarios realistic?

Is it worth it to try to find the old 10" pipe? DUD does not like us to dig because of all their pipes.

What do we need for an RFP?