

Drinking Water State Revolving Loan Fund (DWSRF) Green Infrastructure Pumps and Pipes Guidance for American Recovery & Reinvestment Act (ARRA) Projects

This is to provide additional information on making a business case for a DWSRF-funded project involving pumps and pipes, that is not categorically eligible to qualify as a Green Reserve project. In general, a business case under either loan program will generally involve:

- 1) A technical component comprised of:
 - a) Information from maintenance or operations records, engineering studies, project plans that:
 - (i) Identifies problems in existing facility
 - (ii) Clarifies technical benefits from project in water and/or efficiency terms
- 2) A financial component comprised of:
 - a) An estimate of cost and water savings from the project based on technical analysis of benefits
 - b) An assessment that these savings comprise a substantial part of the financial justification for project

Actual business case examples from proposed ARRA DWSRF projects should be available soon. In the mean time, here are suggestions on documenting an acceptable business case under the DWSRF for pumps and pipes.

Pump Replacement Documentation:

* Should show selection of a pump that ranks among the most energy-efficient commercially available. Efficiency improvements should be substantial compared to the average efficiency currently available for that type of pump. Additionally, energy efficiency should not be established by simply comparing the new equipment to equipment being replaced, since any replacement equipment would be expected to be more efficient than existing equipment.

- * Provide verified efficiency projections
 - List the manufacturer, make, and model of key components (motors, pumps, etc.)
 - Document that the energy efficiency specifications for proposed equipment demonstrate substantial savings over other currently available equipment

Pipe Rehabilitation/Replacement Documentation:

- * Should provide specific data documenting water loss (at minimum, system-wide, or more localized data if available)
- * Should identify the length, C-values, pipe material, diameter, and provide a general description of position within system, of pipes being rehabilitated/replaced.
- * Should document that the pipes to be replaced are the primary source of water loss (if such data is available). At minimum, should provide specific information on basis for rehabilitation/replacement, such as pipe age, type. Additionally, should provide operation and maintenance records showing that the pipes proposed for replacement are likely to generate largest return in leak reduction
- * If energy efficiency is relevant to project qualification as “green”, should provide any available documentation regarding expected increases in energy efficiency

We hope that these suggestions will be helpful to you. Again, please remember that this information applies only to DWSRF projects. We will provide further information on this subject as it becomes available from actual projects.