

Energy Efficiency in Water Treatment

a. **Description:** Establishment of programs to promote improved energy efficiency equipment and design in water treatment and purification systems.

b. **Public Policy Rationale:** According to a report prepared for the Northwest Energy Efficiency Alliance (NEEA), the Electric Power Research Institute (EPRI) has found that the wastewater industry consume approximately three percent of the nation's total energy bill, and is responsible for approximately five percent of total energy consumption in the Pacific Northwest. Moreover, the NEEA report found that recent research indicates that the energy consumed by water and wastewater treatment facilities is on the rise as the national demand for safe drinking water is expected to increase by about 25 percent over the next 20 years. Implementing programs to improve the efficiency of energy usage at such facilities therefore represents an important opportunity to significantly reduce electricity consumption both nationwide and within the WRAP region.

c. **Examples of Implementation:** The BacGen BioWise Project is a market transformation venture focused on making micro-nutrient assisted biodigestion technology and industry standard. Developing formally documented field trials and disseminating the results are the project's primary market transformation tools. The BacGen Project includes the combined efforts of the NEEA and BacGen Technologies. The project represents the belief that micro-nutrients are the next stage for energy efficiency in the water treatment industry. Such technologies can allow water treatment facilities to substitute energy consuming mechanisms for non-energy consuming biological processes. The BacGen program includes three primary steps: 1) conduct a wastewater survey of all industrial and municipal wastewater facilities including flow volume and energy usage data; 2) establish a series of demonstration sites where the BacGen technology can demonstrate its ability to provide both energy and non-energy benefits; and 3) conduct an awareness campaign where data and information gathered from the demonstration sites is provided to all potential market actors (not just wastewater plant operators). For more information, [click here](#).

d. **Political Feasibility:** Utilizing the market transformation potential of this program should therefore be politically feasible. No action by state legislatures or regulatory agencies would be required.

e) **Costs and Benefits:**

f) **Interaction with other policies:**

g) **Quantifiable under SIPs:**

h) **Required Actions to Implement:**

