

Where Does Burbank's Power Come From?

Burbank Water and Power gets electricity from a number of sources, using a wide variety of technologies and fuels, located in California, Arizona, Nevada, Washington, Wyoming, and Utah. Here is one...

MAGNOLIA POWER PLANT



The Magnolia Power Project (or "MPP") is the flagship of BWP's generation fleet. In fact, it won the Platts Power Magazine's "Project of the Year" award when it began operation in 2005.

Located in the award winning BWP EcoCampus adjacent to Magnolia Boulevard, MPP is a clean, efficient baseload power plant that operates between 160 and 242 Megawatts (MW), but can reach 310 MW during periods of high demand. MPP generates this power on behalf of BWP (with a 31% share) and MPP's five other participants: the municipal utilities of Anaheim (38%), Glendale (17%), Pasadena (6%), Colton (4%), and Cerritos (4%). Each utility has a share in the project through the Southern California Public Power Authority.

Both natural gas and biomethane, a renewable fuel, are used to fuel MPP. Biomethane is created by refining gas produced by landfills and sewage treatment plants into pipeline-quality gas. Both fuels are delivered through the same underground pipeline. The biomethane is an important component of BWP's compliance with California's Renewable Energy Standards, which mandate that California utilities procure a significant portion of their energy from renewable sources.

MPP uses two stages of power production to extract as much energy as possible from the natural gas and biomethane. First, the gas fuels a combustion turbine, which is much like a very

large scale jet engine. The hot exhaust from this turbine is used to make steam in a Heat Recovery Steam Generator, and that steam is used to drive a steam turbine. Both turbines are connected to generators, which produce electricity from the turbines' rotation. MPP has a number of state-of-the-art environmental features that are not common to power plants of its type. One system called Zero Liquid Discharge maximizes water recovery and allows ZERO water to be discharged into storms drains that lead to the Pacific Ocean. Over a million gallons per day of recycled water is used to operate the power plant including the highly purified water used in the steam turbine generator. In addition, MPP uses a variety of advanced pollution control equipment to minimize its air emissions.

While MPP generates on behalf of its six municipal utility participants, the plant is operated and managed by BWP using BWP's own staff. The other participants reimburse BWP for their proportional share of the cost of managing and operating the plant, including staff costs. The income BWP earns to operate the power plant is used to help keep electric rates affordable to all rate payers in Burbank. MPP provides other advantages for BWP such as adding important reliability benefits for Burbank and providing local power that frees up BWP's regional transmission rights for other uses.