

City of Petaluma – Ellis Creek Water Recycling Facility

3890 Cypress Dr., Petaluma, California

I. Respondent:

Matthew Pierce – Operations Supervisor

II. Presenter:

Matthew Dabner – Lead Operator

III. Treatment Plant Characteristics:

- Wastewater/Water Recycling
- 25 employees
- 70,000 customers served

IV. Innovation: From Digester Gas to Bio-Compressed Natural Gas (CNG)

A. Description

This project is to convert Digester Gas to Bio-compressed natural gas that will be used to fuel garbage trucks for the garbage company in Petaluma.

B. Type of Innovations

- New Treatment Process

C. Motivation for Innovations

Details. Resource recovery and utilization of Digester Gas. This will allow us to supply Bio CNG rather than flaring most of the digester gas and using the rest to heat the digesters.

D. Barriers/Challenges

The greatest barriers/challenges the City of Petaluma encountered were with permitting through the Air Board. This process is still ongoing and has been very challenging.

E. Benefits

This change has not been put into service so there have not been any benefits as of now.

F. Effect on Staff Training

This change has required additional operations and maintenance staff to be hired in anticipation of the added workload of both operating and maintaining the equipment. This is also an entirely new process at the facility that will require substantial training in order to operate/maintain.

G. Lessons Learned:

Working through the process of planning, permitting, and construction with the Air Board takes a very long time and can be a challenge to meet the requirements for information they require while following the normal planning, bidding, and construction process of a project like this.