# Update on Technology Implementation Office

**Board of Directors Executive Committee** 

Jack P. Broadbent - Executive Officer/APCO

February 22, 2017

### The Vision

- Draft Clean Air Plan proposes a post-carbon Bay Area by 2050
- Regulated facilities will need to change how they operate in order to achieve this vision:
  - ✓ Deployment of cost effective CO₂ emissions reductions technologies (e.g. energy efficiency and combined heat and power)
  - ✓ Sharing of lower carbon intensity practices across industries
- Zero emissions vehicle deployment and smart/connective technologies still require support

### **TIO Concepts**

#### **Mission Statement**

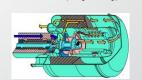
Establish the Air District as a catalyst for innovation in the field of greenhouse gas emissions reduction by deploying disruptive, low-cost solutions in the areas of zero emissions vehicles; smart/connected technologies; and zero emissions energy generation and efficiency technologies.

# Project Examples

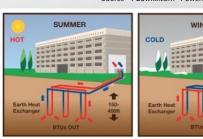
- Gas micro turbines for combined heat and power
- Hydrogen fuel cells for combined heat and power
- Carbon sequestration/hydrogen generation from natural gas
- Renewable diesel from renewable natural gas
- Battery storage for renewable power
- Geothermal water heating and cooling
- Autonomous electric vehicles



ource – Fuel Cell and Hydrogen Energy Association



Source - PESwiki com - PowerPedia-Gas turbin



Source - Advance Heat and Air Company

## TIO Implementation

- Officer Level Position in Recruitment Underway
- FYE 2018 Budget:
  - ✓ Realigns Strategic Incentives Division Staff
  - ✓ Funding for consultants to assist in GHG technology assessment for Stationary Sources
  - ◆ \$5 million to be requested in transportation fund for clean air monies for electric vehicle and enhanced mobility programs
  - ✓ Requesting creation of \$4 million reserve as seed funding for a revolving loan fund
  - ✓ \$150,000 in reserve funding requested for Technology Conference
  - Establish stationary source technology leadership forum

### Next Steps

- Retool Foundation to assist TIO with funding and funding decisions:
  - Seek new Foundation Board members from industry, technology, academic, banking and venture capital sectors
  - Explore matching grant/loan funding concept with private foundations
  - ✓ Foundation recommendations on projects to be presented to the Executive Committee
- Develop recommendations on revolving loan fund