



# Presentation to the Hydrogen Technology Advisory Committee

July 15, 2009

# Avāence Hydrofiller Electrolyzer

The Avāence *Hydrofiller* technology advantages:

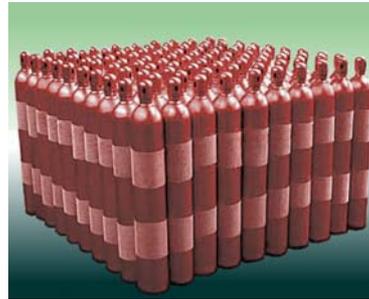


**Complete “Personal”  
Renewably-Powered  
Vehicle Fueling Station**

- **Based on inexpensive alkaline electrolyzer technology**
- **Direct 2,500 psi production eliminates the need for compressors and conditioners in many applications**
- **Configurable for direct integration with renewable power sources**
  - **Zero CO<sub>2</sub> emissions “Well to Wheels”**
  - **Utilize grid sources as needed**
- **U.S. patent awarded and international patents pending**
- **Core technology applies across markets and applications**

# Hydrofiller Markets

**Near Term  
Markets**



**Industrial  
Hydrogen**



**Backup  
Power**



**Industrial  
Transport**

**Growth  
Markets**

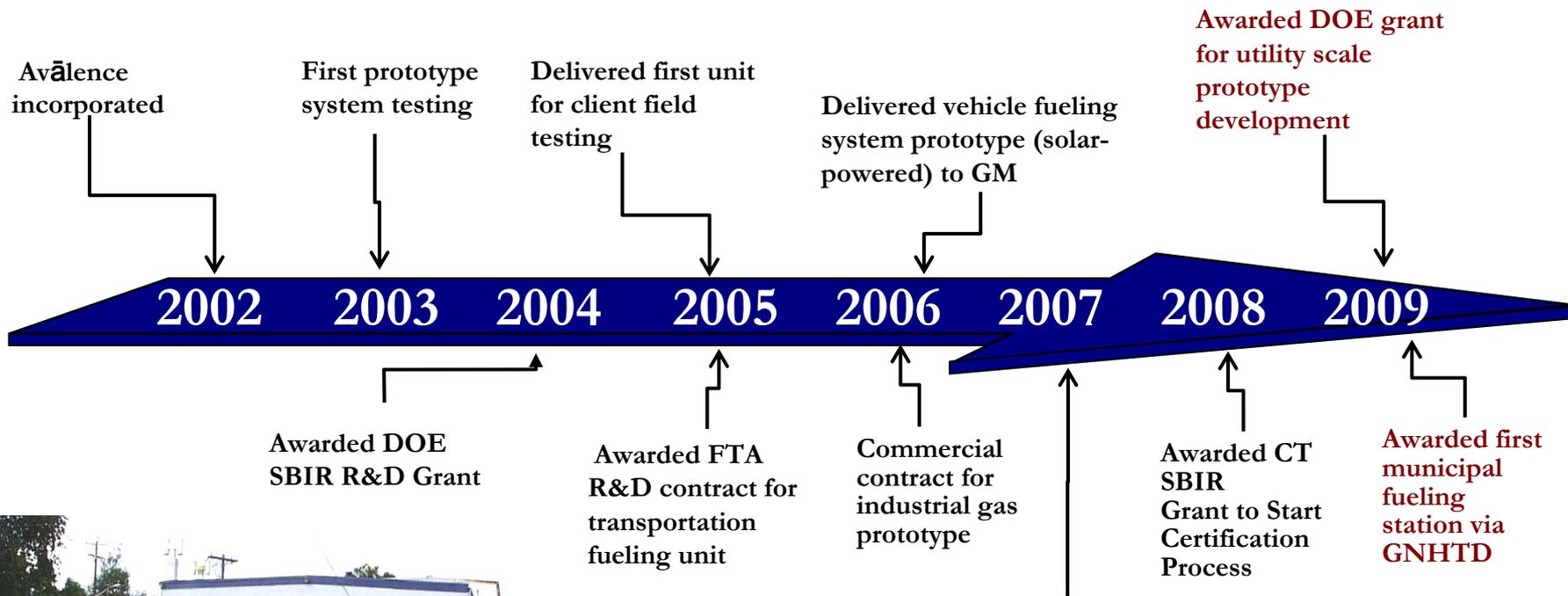


**Hydrogen  
Fueling**



**Energy  
Storage**

# Company Milestones



Joint development of self-refueling backup power system with UTC Power

**Company Facility in Milford, CT**



# Self-Refueling Back-Up Power System Development with UTC Power



## Energy Reinvented



How **Clean, Green Energy** is created.



Solar Energy



PV Array



Hydrofilter Electrolyzer



Storage Tanks



PureCell® Model 5  
Power System



Customer

# Renewably Powered Home Fueling System Development with GM



## Solar Hydrogen refueling today



# Continuity In Federal Programs Is Key

## **How We Got this Far:**

- **Early Development Work on Core Technology and Distributed Scale Systems Funded Via Seed Investment and DOE SBIR Funding**
- **Angel Funding and Several Demonstration Projects with DOT, DOD, and Key Development Partners Positioned Technology for Commercialization**
- **Additional DOE Grant Received to Enlarge Distributed Scale Systems (kW input) to Utility Scale (MW input)**
- **CT State Funding Potentially Used for Obtaining Standard Equipment Certifications (CSA, CE, ...)**

## **What Is Needed Now:**

- **Program Continuity from the Federal Government :**
  - ❖ **Complete Technology Development of Utility Scale Units**
  - ❖ **Continue Critical Technology Demonstration Projects**
  - ❖ **Reassure the Commercial Investment Industry**
- **Appropriate Sales Growth in Near Term Markets**

## Contact Information

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