



# **Distributed Power Generation from a Bio-Oil Reformer and Solid Oxide Fuel Cell**

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## **INNOVATEK**

# InnovaTek Vision

*Convert unique ideas to workable chemistry and hardware to provide sustainable solutions for the world we live in.*

Move the world away from wasteful fossil fuel combustion and toward efficient energy generation from renewable biofuels.



# InnovaTek Company Information

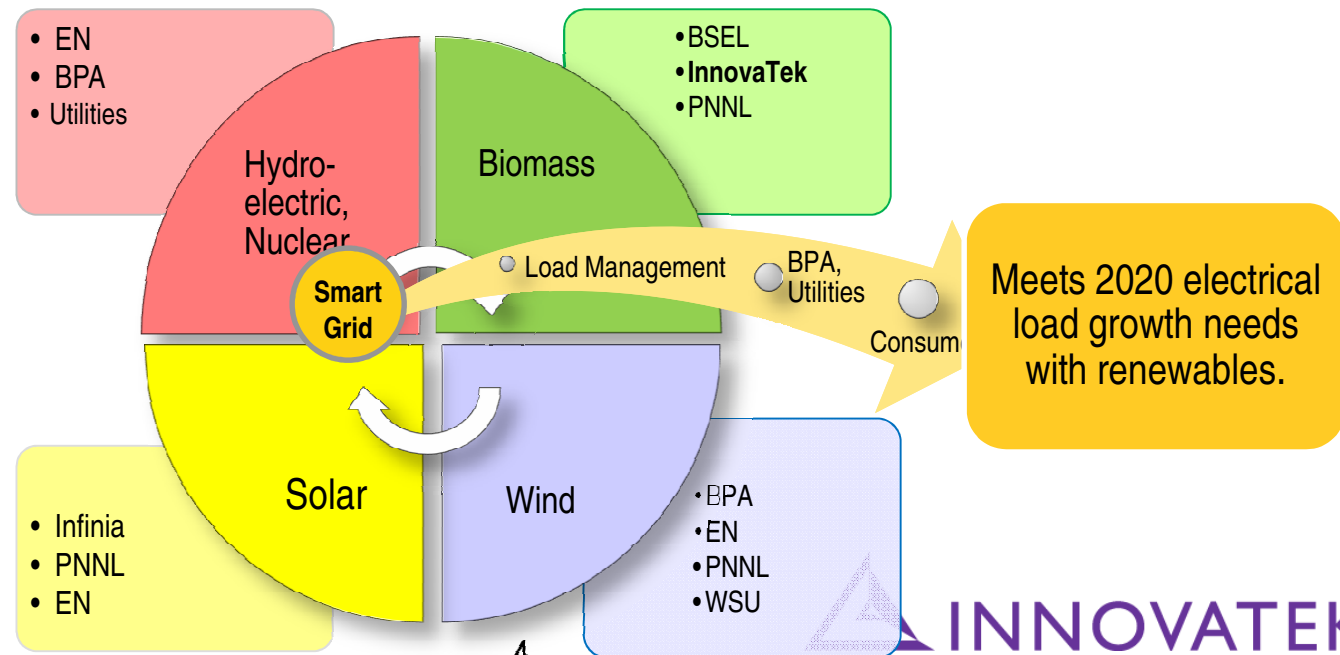
- Incorporated in December 1997
- Richland WA Science & Engineering Park
- Reached profitability and positive net equity in 2002
- Assets are the knowledge base and IP developed with \$21 million in private, government, and owner funding
- Prototypes being sold or jointly developed with systems integrators
- ~12 employees, all with advanced degrees



# Project Goal

Develop and demonstrate a fuel cell distributed energy system that operates with 2<sup>nd</sup> generation biofuel.

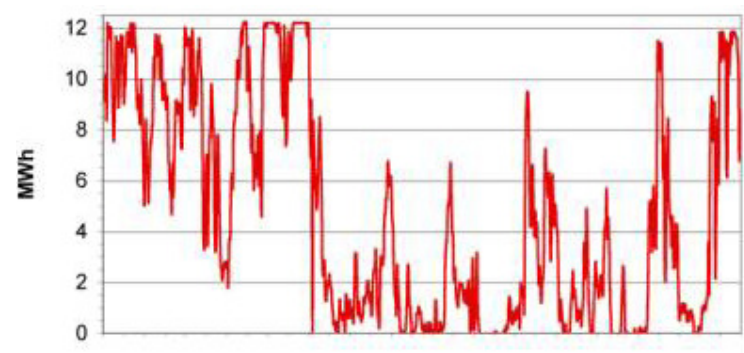
- System based on InnovaTek's steam reforming process and SOFC
- Biofuels include pyrolysis oil and bio-kerosene processed locally
- Demonstrated in Richland's renewable energy park and tied to grid



# Renewable Energy Issues

## Intermittent Reliability

- Climate
- Time



## Energy Storage Methods Needed



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