



Wellhead Reformer for Electricity Production and Other Applications

Novorocs Technologies, Blaise Energy, UND, Halcon

Presented by:
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Agenda

- Introduction to Technology
- Technology Validation
- Why This is Unique
- Goals & Objectives
- Methodology & Timeline
- Benefits to North Dakota
- Questions

Introduction to Technology

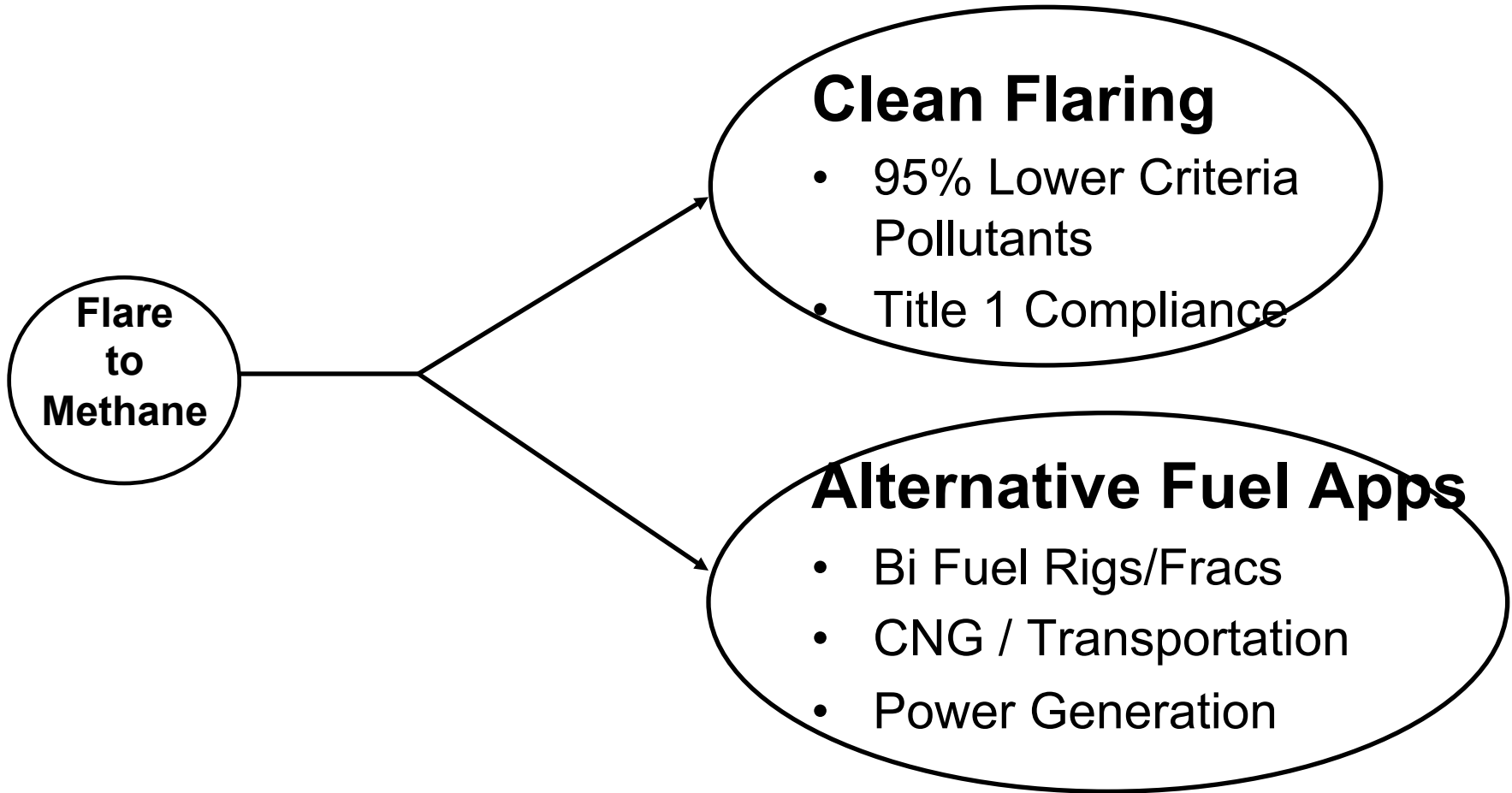
- **Technical & Commercial Solution**
 - Don't separate NGLs. Convert NGLs to CH₄
 - Single reactor, catalytic process
 - Much lower capital & operating costs
 - Scalable to smaller wells (50 - 500 mcf/d)
 - Highly mobile and can easily be moved from well site to well site

Technology Validation

- **Proof-of-Concept Reactor**
Demonstrated on 2 Wells
 - 70% CH₄/25% HC → 87% CH₄
 - 78% CH₄/17% HC → 93% CH₄
- **1 MW Pilot Scale Reactor**
 - Deployed in 2015
 - 300 mcf/d



Why This is Unique



Goals & Objectives

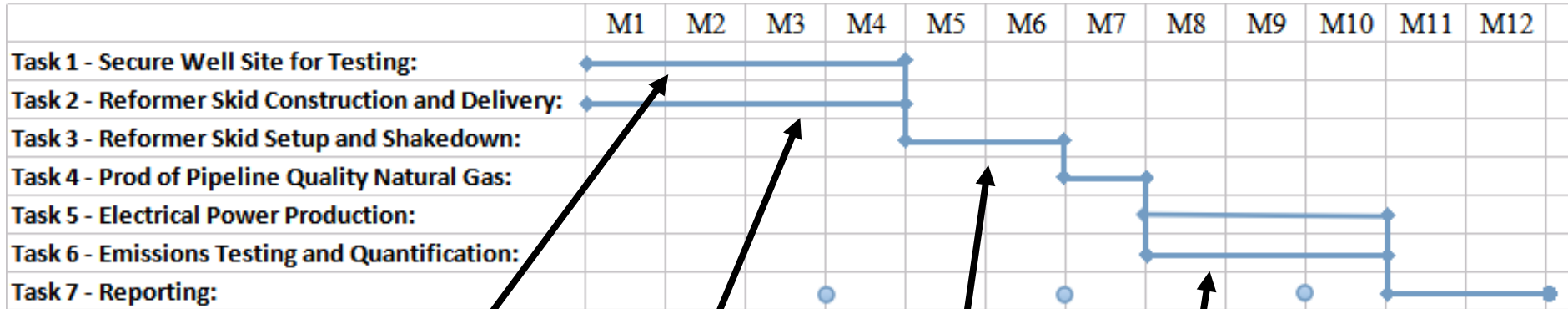
Goal

Prove Technical and Commercial Viability for ND

Objectives

- Demonstrate Full Systems Approach
 - Methane for Bi Fuel Apps., CNG, Power, Clean Flaring
- Quantify Emissions Reduction
- Economic Analysis for Commercial Viability

Methodology & Timeline



Benefits to North Dakota

- Foster New Technologies & Methods
- Monetize Associated Petroleum Gas
 - Cost Savings w/Bi Fuel, Transportation, & Well Site Power
- Reduce GHG and Criteria Pollutants
 - 95% Lower Emissions than Current Flaring Tech
- Create New Jobs
 - Manufacturing, Distribution, & Service



Thank You

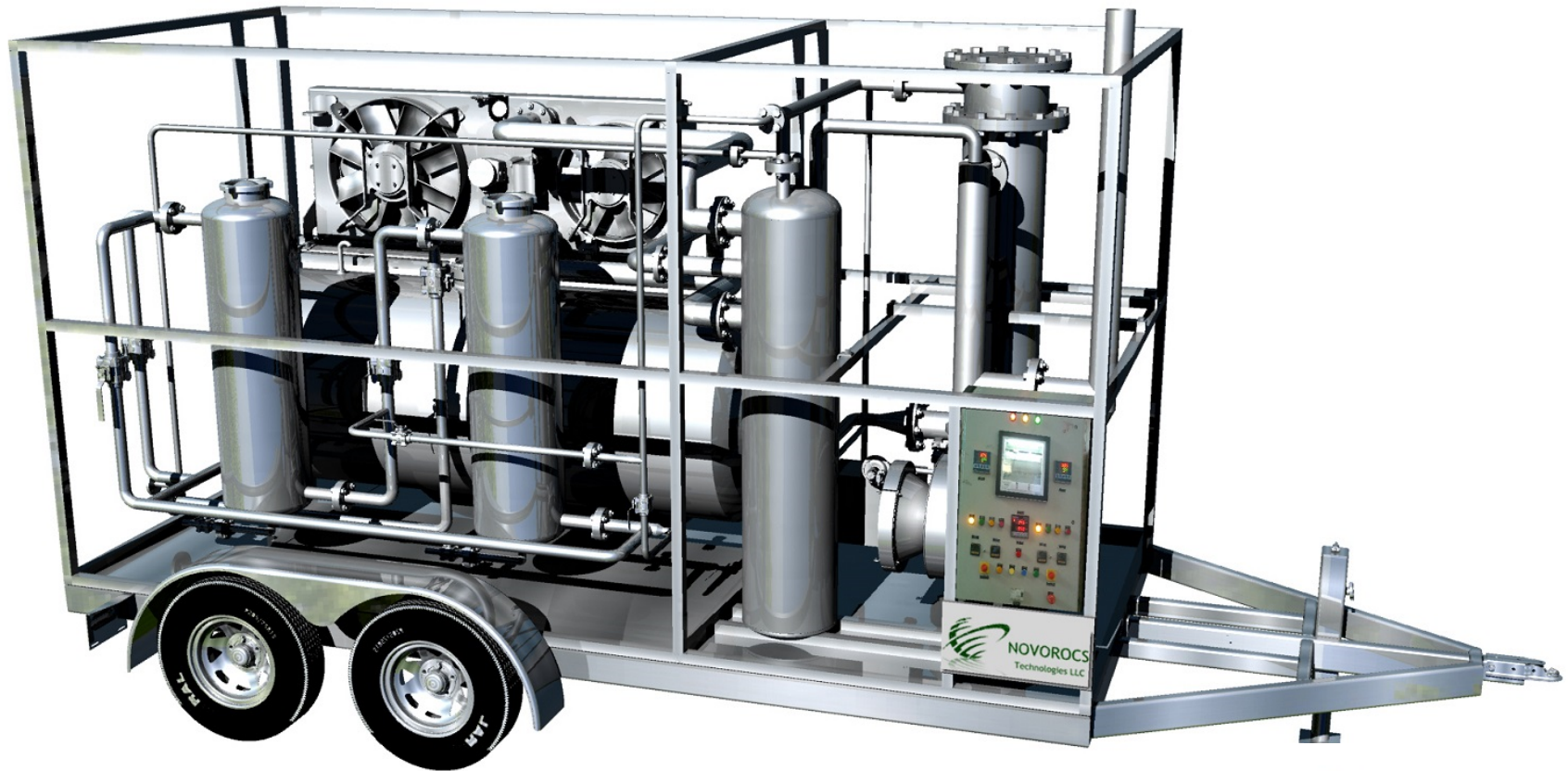
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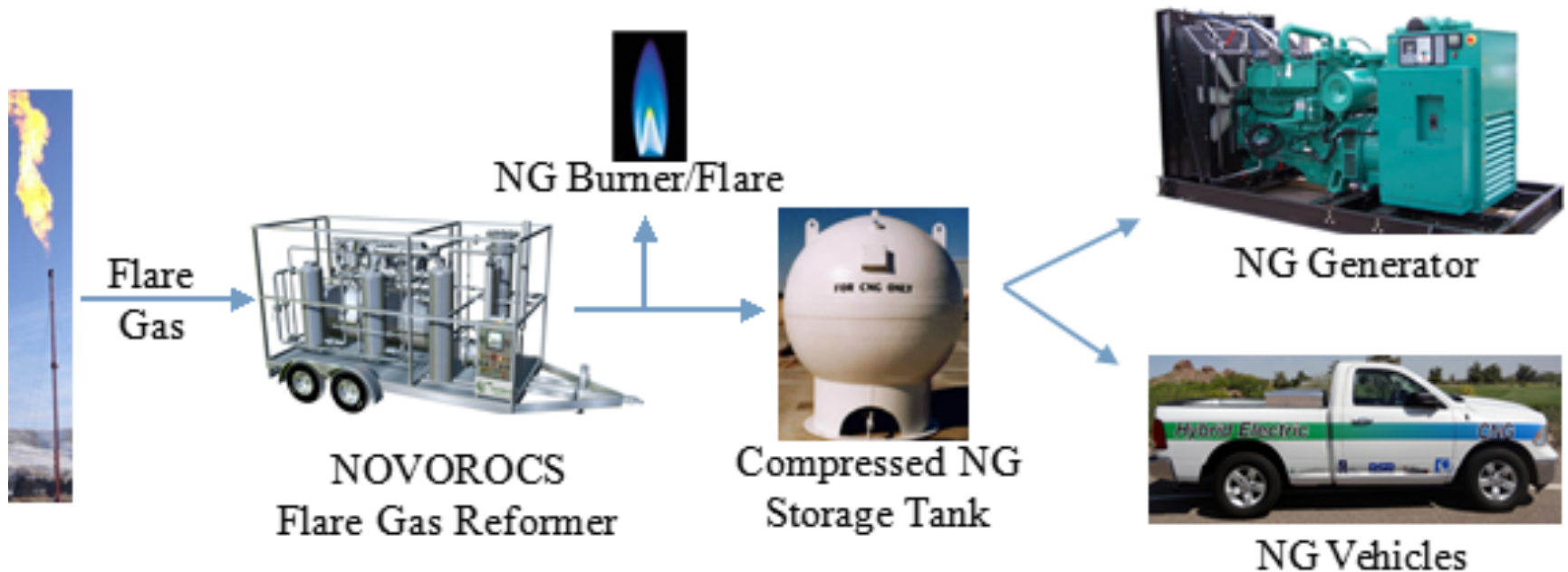
Blaise CNG Trucks



Demonstration Prototype



Proposed Demonstration System



Market

