Informal Informational Meeting

A. Roll Call by City Clerk

B. Topic(s)

B-1 Receive Information on Revenue Opportunities Available through Renewable Natural Gas Low Carbon Fuel Standard Program (PW)

C. Comments by Public on Non-Agenda Items

D. Adjournment

Pursuant to Section 54954.2(a) of the Government Code of the State of California, this agenda was posted at least 72 hours in advance of the scheduled meeting at a public place freely accessible to the public 24 hours a day.

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Pamela M. Farris
Assistant City Clerk
AGENDA TITLE: Receive Information on Revenue Opportunities Available Through Renewable Natural Gas Low Carbon Fuel Standard Program

MEETING DATE: March 10, 2020 (Shirtsleeve)

PREPARED BY: Public Works Director

RECOMMENDED ACTION: Receive information on revenue opportunities available through Renewable Natural Gas Low Carbon Fuel Standard Program.

BACKGROUND INFORMATION: The California Air Resources Board (CARB) developed the Low Carbon Fuel Standard (LCFS) program in compliance with Assembly Bill 32 (the Global Warming Solutions Act of 2006) to reduce the carbon intensity of transportation fuels used in California by 10 percent by 2020. The CARB regulations allow dispensers of compressed natural gas (CNG), such as the City of Lodi, to earn revenue in the form of LCFS credits by partnering with producers of Renewable Natural Gas (RNG).

RNG is methane captured from the decomposition of organic materials at landfills, agricultural facilities, and wastewater treatment plants that has been cleaned and treated to meet natural gas pipeline quality standards. The pipeline quality biomethane is then injected into the national Natural Gas pipeline grid and the CNG we currently use will be displaced with RNG. This “displacement” means that for every unit of RNG that is injected into the pipeline, an equal unit of fossil fuel is not extracted from the earth.

Clean Energy proposes to deliver RNG in equivalent volume to the CNG dispensed at the City’s CNG station on a monthly basis. There are no modifications required to our existing equipment or fleet. The credits are based on the amount of CNG dispensed from the City’s CNG station, which is verified through the monthly Pacific Gas & Electric bills. The City anticipates dispensing approximately 82,000 Gallon Gas Equivalent per year, thus making it eligible to receive LCFS credit payments of approximately $24,000 per year, which will be applied to the City’s Transit Division.

Due to the esoteric nature of this revenue program, a shirtsleeve presentation is scheduled to provide Council with enough information on the program, prior to staff requesting award of a contract.

FISCAL IMPACT: Not applicable.

FUNDING AVAILABLE: Not applicable.

Charles E. Swimley, Jr.
Public Works Director

Prepared by Georgia Graham, Transportation Manager
CES/GG/tc

APPROVED: __________________________
Stephen Schwabauer, City Manager
Agenda

1. Clean Energy
2. What is RNG?
3. RIN  LCFS Markets
4. RNG Proposal – City of Lodi
5. Questions
**Clean Energy At A Glance**

<table>
<thead>
<tr>
<th>CLEAN ENERGY</th>
<th>$346 MM in Revenue in 2018</th>
<th>40 states Across the U.S. and Canada</th>
<th>365 Gallons sold</th>
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</thead>
<tbody>
<tr>
<td>Provide Services or Fuel to 300<strong>Additional Stations</strong></td>
<td>190 Service Technicians</td>
<td>1,000 Fleet Customers</td>
<td>46,700 NGVs</td>
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<tr>
<td>530 Natural Gas Stations</td>
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In 2018, Clean Energy delivered **110 million** gallons of Redeem Renewable Natural Gas (RNG) Fuel

- **665,000+ Metric Tons**
- **141K+ Cars off the Road**
- **232K+ Tons of Waste**
- **11M+ Trees**
What is Renewable Natural Gas?

Renewable natural gas (RNG) has significantly lower greenhouse gas emissions than diesel and gasoline. It is even cleaner than electric vehicles, when considering how the electricity is produced.

When used as a vehicle fuel, RNG delivers the best and highest use it replaces the demand for high-carbon diesel and gasoline with a fuel that reduces the GHG emissions of a fleet.

- **REDUCES EMISSIONS**: Reduces greenhouse gas emissions by 70% or more from gasoline and diesel
- **COST EFFICIENT**: Substantially less expensive than diesel and gasoline
- **RENEWABLE**: Made from organic waste sources like landfills and dairy waste
- **DOMESTIC**: Moving the country towards energy independence
Renewable Natural Gas Roadmap

1. Capture & Extract
2. Process & Purify
3. Enter Interstate Fuel Pipeline
4. Reduce Transportation Emissions
5. Fuel a Greener Supply Chain
Regulatory Programs

Federal Regulation
- Renewable Fuel Standard (RFS2)
- Mandated through 2022 and every year thereafter
- Credits (RINs) generated for every gallon of renewable fuel produced and consumed

State Regulation
- California Low Carbon Fuel Standard
- Mandated through 2030
- LCFS credits generated for every metric ton (MT) of CO₂ emission reduced when using a low carbon transportation fuel
Low Carbon Fuel Standard (LCFS)
GHG Emissions Calculations

- Credits are generated against compliance curve
- Goal: decrease CI of transportation fuels in CA 20% by 2030

102G ULTRA LOW SULFUR DIESEL
79G COMPRESSED NAT GAS
48G FROM LANDFILL
-15G FROM DRY AD
CER RNG Proposal

- 3-year supply deal
  - Two one-year extensions at City’s option
  - 100% RNG Supply for City’s volumes
  - Can accommodate City CNG station volume growth

- 5% RIN revenue share, paid monthly

- 10% Incremental LCFS revenue share, paid quarterly

- 100% Fossil CNG equivalent LCFS revenue, paid quarterly

- CI is fixed at 48 for revenue share only

- Sustainability marketing support
Conclusion  CNG with Better Economics

RNG is available today for 100% of the City’s CNG demand

- Significant additional value can be unlocked by the City by fueling with RNG instead of fossil CNG

- Clean Energy Renewables is an experienced RNG provider and offers a comprehensive program for environmental credit management, recordkeeping, reporting and monetization