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CEC 2012 Intergrated Energy Policy Update

Evaluating & Capturing the Benefits of Renewable Energy for

California

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SoCalGas & SDGE Biomethane Development Status

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Drivers of Biomethane Production



- California Regulatory Environment
 - * Renewable Portfolio Standard of 33%
 - * Assembly Bill 32: cap-and-trade to return to 1990 emission levels (i.e. 30% vehicle GHG emissions reductions by 2016, overall 30% state reduction from 2020 projected emissions, target high global warming potential gases)
 - Low Carbon Fuel Standard: 10% reduction in carbon content of passenger vehicle fuels by 2020
- Large demand for in-state renewable fuels for on-site distributed generation, central generation, and vehicles to meet Green House Gas (GHG) reduction targets
- Availability of feedstocks that currently vent or flare methane: wastewater, food waste, dairy, biomass = potential 16% of CA daily natural gas consumption.
- Potential under cap-and-trade for credit/offset value from captured GHG emissions

Development Challenges



 Permitting: on-site biogas generation challenged by air quality permitting (NOx) and required air, water, and land use multi-layer regulatory approvals

Feedstock aggregation

- Multiple feedstock for improved flow rates v. groundwater issues
- Rights-of-way for aggregation infrastructure
- Multiple dairy owners agreement required
- Engineering of aggregation is site-specific

Perceived technology risk

- SoCalGas Rule 30 and PG&E Rule 21 gas specifications
- Limited demonstration projects to the financial community
- Uneven biogas incentives: federal biogas on-site generation incentives not available for pipeline biomethane production
- Administrative: marketing and contractual arrangements for sale of biomethane required

Sempra Utilities Biogas Initiatives



Pipeline Biomethane Injection Readiness

- Rule 30 Biogas Guidance Document released September 2009
- Participating in Gas Technology Institute (GTI) studies dairy biogas, landfill gas
- Support for biogas regulatory policies:
 - * CARB rules to permit offsets for digesters improves biogas/biomethane economics
 - * CEC RPS eligibility advocacy
 - * CPUC Regulatory definition: "gas derived from renewable organic sources"

Propose SoCalGas Biogas Conditioning/Upgrading Tariff

- Where production cost < MPR of biomethane, provide tariff biogas conditioning service
- Enable large customers to produce biogas and/or pipeline quality biomethane from their organic feedstock. Facilitates onsite gen, NGV fueling, pipeline biomethane supplies.
- SoCalGas to own/maintain biogas conditioning equipment and charge customer a fee under a longterm contract.
- Requires CPUC approval.
- Enlisting the support of local and statewide agencies