

# Biogas Credits and Delivery Options

California Energy Commission Workshop

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**Aspen**  
Environmental Group

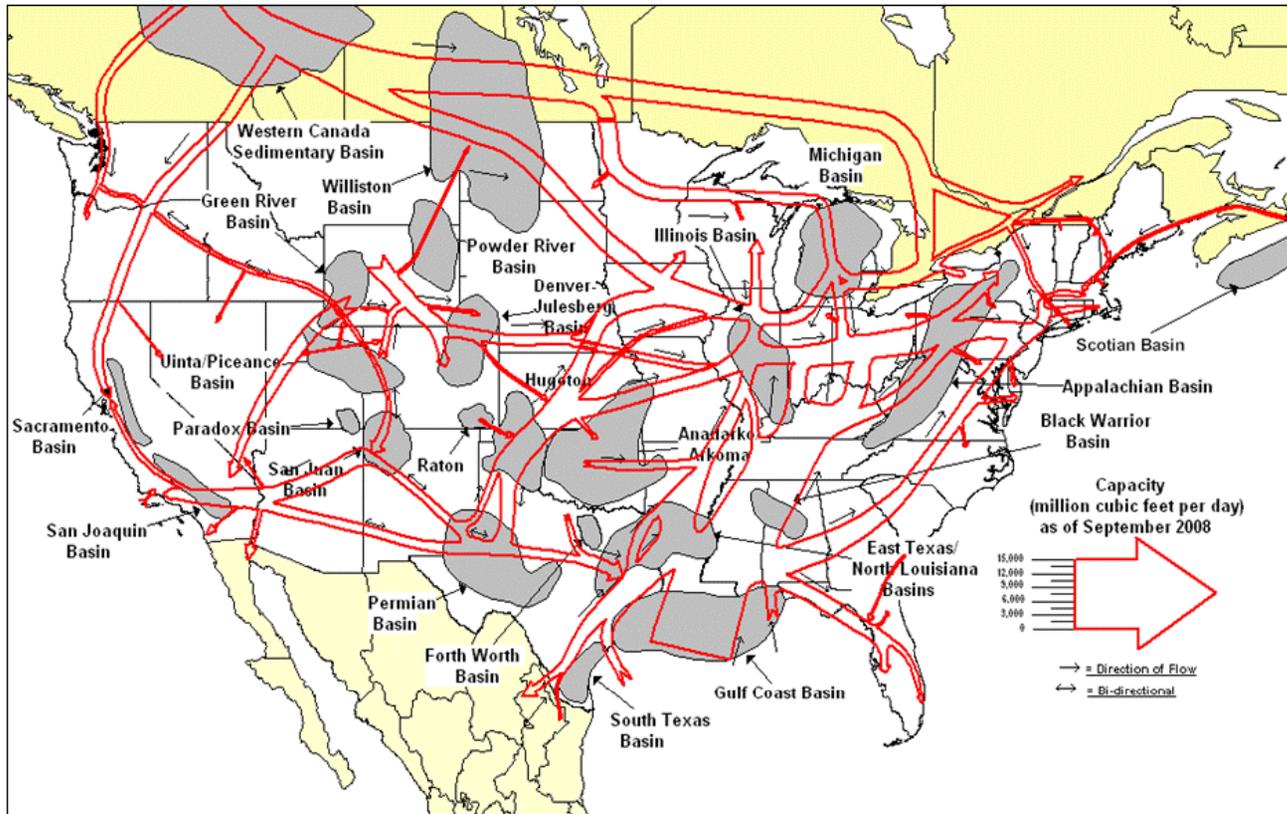
Catherine Elder  
Aspen Environmental Group

# Some of the Policy Issues

## Include:

- Intention is to give renewable energy credits for electricity generated via biogas
- California landfill gas cannot be accepted into pipes of CA gas distributors by statutory concern as to gas quality
- Biogas available in places not connected to CA
  - Natural gas is fungible such that gas into pipe is never necessarily the gas burned by user
  - know what is in the overall mix but can't trace molecules to end-user EXCEPT when single, direct line
  - Industry documents flows with meter reads and schedule confirms
  - Accounting is “after-the-fact” – can't stop flow
- Desire to produce benefits in CA

# Gas from Eastern 3/5 of US Cannot Flow to CA and All Gas Is Different



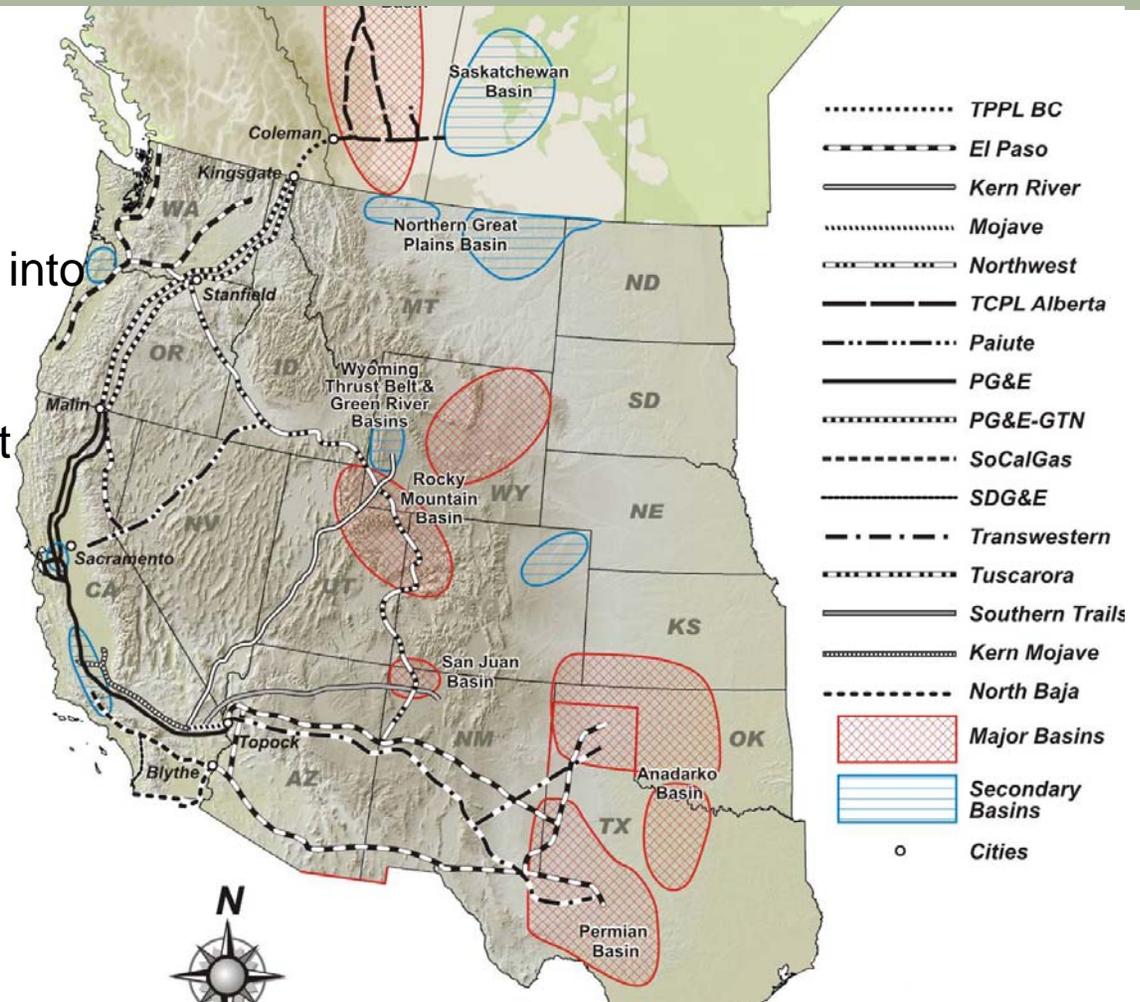
Source: Energy Information Administration, Office of Oil and Gas, Natural Gas Division, GasTran Gas Transportation Information System.

The EIA has determined that the informational map displays here do not raise security concerns, based on the application of the Federal Geographic Data Committee's *Guidelines for Providing Appropriate Access to Geospatial Data in Response to Security Concerns*.

# Gas From Across WECC Reaches CA Directly or Via Displacement

Guidelines effectively say that if biomethane can get delivered into Interstate Pipelines that can reach California, either directly or via displacement, it can count for RPS.

Consistent with way other consumers take delivery of natural gas.



# Delivery Via Displacement Is a Physical “Swap” Technique for Gas In/Out

- Supplier S already sells southern gas and northern gas into Market A.
- Now B wants 20 MMBtu of northern gas, but B is connected only to southern gas.
- S will reduce the southern gas he delivers to A by 20 MMBtu and instead delivers it to B. Then he replaces that southern gas he took from A with 20 MMBtu of northern gas. ...  
SWAP!
- S charges A for the northern gas even though B actually physically got was the southern gas

# Policymakers can Choose from Following Options in Allowing Renewable Credits for Biogas:

- Paper swap -- gas supply contract only and no connection to California
- Physical connection to California and producing area but in wrong direction, so transport via displacement
- Physical connection to California or pipeline in West, so might need some transport via displacement but must document contract path (current requirement)
- Forward haul physical path delivering directly into CA with firm transport (most gas delivered like this)

Limit to only CA-produced and consumed biomethane

# Ancillary Details Need Decision

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- Natural gas deliveries often differ from what customers actually burn = *imbalance*
  - Should credit be for volume based on:
    - Contract volume (ignoring imbalances)?
    - Volume read at meter?
    - Other?
- Shrinkage
- Even if installed equip to spectrometer gas at injection point and burn point – gas is intermingled and key interest is in combusting