



putting excess methane to work

PROBLEM

Excess or isolated natural gas is a liability to upstream heavy oil and gas producers. Heavy oil production facilities commonly produce excess solution gas as a byproduct to oil production and treating. Conserving and selling the excess gas to market is desirable, however the significant capital costs and uncertainty in produced volumes mean a return on investment is unlikely. Alternate options are far from desirable. Venting excess methane to atmosphere is a severe environmental risk and flaring or combusting the gas on site is simply a waste of a natural resource.

SOLUTION

Upstream Data Inc. has invented¹ a solution that we guarantee will both reduce methane emissions and provide a return on investment for upstream oil and gas producers. Our portable **HASHGEN™** is compatible for practically any facility with a natural gas source, without any need for infrastructure besides a stable cellular signal. Our solution consists of a natural gas genset powering a “Proof-of-Work” hashing datacenter. The automated and remote controlled datacenter is compensated for its work in crypto-currency, the benefit of which is returned to our customers. The entire package is housed inside a portable, scalable, plug-and-play shipping container.

¹ Patent Pending

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upstream DATA

OPTIONS	INSTALL COMPRESSOR / PIPELINE, SELL GAS	INSTALL GENERATOR / SELL POWER TO GRID	INCINERATE / FLARE / COMBUST	UPSTREAM DATA'S HASHGEN™
Capital Cost	High	High	Medium	Low
Operating Cost	Medium	Low	Low	Low
Revenue generating?	Yes	Yes	No	Yes
ROI Risk	High	High	N/A	Low
Reclamation Costs	Yes	Yes	No	No
Equipment Salvageable	Some	Some	All	All
Portable	No	No	Yes	Yes
Scalable	No	No	Yes	Yes
Regulatory Spacing Restrictions	No	No	Yes	No



applications

- Consume excess solution gas from venting CHOPS (SWB or multi-well pads)
- Can be paired with existing incinerators, flares or combustors
- Relieve bottlenecked gas processing facilities



features/benefits

- Scalable to consume any gas volume
- Redeploy to another facility within a few hours' notice
- No requirement for lease expansion (the **HASHGEN™** fits between the wellhead and tank for a SWB)
- Minimal ground disturbance is required (grounding rod / plate)
- No pipeline, power grid or infrastructure requirements
- 24/7 remote datacenter monitoring / control
- A fuel gas metering package is optional if desired for compliance / carbon credit reporting purposes



specs

- Prime mover range: 5.7L GM V8 up to an 8.3L Cummins inline V6
- Maximum generating load: 110 kW / unit
- Natural gas consumption: up to 1200 m³/day/unit (depends on load and gas quality)

