The Platform for Digital Commodities

Upstream Natural Gas
Global Methane Forum
Toronto … April 18, 2018
Commodities are undifferentiated in markets

- Barrel of Crude Oil
- MCF of Natural Gas
- Bushel of Corn
- ‘Gravity’
- BTU
- Weight #56
COMMODITIES ARE NOT CREATED EQUALLY
GHG Emissions: Oil Climate Index

Total GHG Emissions for 30 OCI Test Oils

- Upstream Emissions
- Midstream Emissions
- Downstream Emissions

Oil Field Country and Name
We collect DATA directly from *existing* meters at the source of production…
Xpansiv creates an attributional profile linked to the underlying asset...

MCF of Natural Gas

... and generates a unique, cryptographic identity for the asset that is verifiable back to the source.
THE RESULT IS DIGITAL FEEDSTOCK™

Digital Feedstock is:

- A digital commodity
- Verifiable
- Immutable
- Attributional
- Real-time
- A tradeable asset
- Transformative
Digital Feedstock Enables Digital Transformation of Commodity Sector

- **Primary Source Production Data**
  - Ingested, Structured, Hashed
  - "Smart Standards"

- **Trading Firm**
  - Enhanced Trading
    - Risk Reduction
    - Tighter Ties to Suppliers

- **Commodity Producers**
  - Decreased Settlement
    - New Spot Products
    - New Differential Products

- **Exchanges**
  - Increased Visibility
  - More Effective Policies
  - Automated Audits
  - Increased Accuracy
  - More Accurate Ratings
  - New Rating Products
  - Reduced Risk
  - Increased Transparency (KYC & AML)

- **Government**
  - Reduced Risk
  - New Products
  - Market Info
  - Bundled Products & Services

- **Reporting & Audit Agencies**
  - Shareholder & Customer Assurance via Supply Chain Transparency

- **Buyers**
  - Reduced Risk
  - Reporting Efficiency

**Increase Forecasting Accuracy**
- Differentiated Products
- Production Analytics
- More Efficient Reporting
- Operational Efficiency
Leveraging Distributed Ledger Technology

• Foundation for ensuring assets are always tied to actual, verifiable production
  • Data and Digital Feedstock pedigree and audit trail
  • Reporting (MRV) authenticity

• Account functionality, e.g.,
  • Proof of correct standard/logic
  • Multiple assets
  • Contract execution
  • Retirements
### DIGITAL FEEDSTOCK TRANSACTIONS VIA DLT

<table>
<thead>
<tr>
<th>Transaction ID</th>
<th>Description</th>
<th>Amount</th>
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<td>(289,954)</td>
</tr>
<tr>
<td></td>
<td>Marketplace receives</td>
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</tr>
</tbody>
</table>
Thank you.