Energy Transition Committee
Energy Transition Committee - Agenda

• Welcome
• Membership, Mission, Values – 10 mins
• Energy Transition Strategy – 20 mins
  • Accenture David Rabley, Global and North America Lead for Energy Transition
• Goals for Committee in 2020 – 20 mins
  • Events
  • Deliverables
• Governance and Operating Rhythm – 10 mins
# Committee Membership

**Chair:** Marco Caccavale: VP Americas, Baker Hughes  
**Co-Char:** Sanjiv Shah: Managing Director, Investment Banking, Simmons Energy

<table>
<thead>
<tr>
<th>Name</th>
<th>Company</th>
<th>Position</th>
</tr>
</thead>
<tbody>
<tr>
<td>Diana Hopkins</td>
<td>Caterpillar</td>
<td>Emerging Technology</td>
</tr>
<tr>
<td>Dave Christmas</td>
<td>Fluid Delivery Solutions</td>
<td>Chief Executive Officer (Temporary)</td>
</tr>
<tr>
<td>Travis Bolt</td>
<td>NOV Completion &amp; Production Solutions</td>
<td>Product Development Manager</td>
</tr>
<tr>
<td>David Ulrey</td>
<td>NOV Completion &amp; Production Solutions</td>
<td>Director – NOV Renewables</td>
</tr>
<tr>
<td>Don Bishop</td>
<td>Oerlikon Metco</td>
<td>Global Market Manager, Oil &amp; Gas</td>
</tr>
<tr>
<td>Sikander Siraj</td>
<td>Schlumberger</td>
<td>Director Operational Sustainability</td>
</tr>
<tr>
<td>Brendan Gilbert</td>
<td>Solaris Oilfield Infrastructure</td>
<td>SVP for Customer Service and Quality</td>
</tr>
<tr>
<td>Sofia Barrios</td>
<td>TechnipFMC</td>
<td>Vice President, Measurement Products</td>
</tr>
<tr>
<td>Benoit Chambert-Loir</td>
<td>Vallourec</td>
<td>Development &amp; Innovation Global Key Account Manager</td>
</tr>
</tbody>
</table>
Energy Transition - Mission

PESA Member Companies are committed to technology-driven efficiencies in their own operations, contributing technologies to increase efficiency of their customers, and thought leadership around a smart energy transition for the oil and gas industry.

The PESA Energy Transition Committee will share best practices in innovation and promote new solutions to meet the industry’s lower-carbon commitments as technology in the sector evolves.

Through highlighting increased technological efficiencies, expanding uses of natural gas, and collaboration with innovative new energy technologies, the Energy Transition Committee will also promote using all available forms of energy to support the world’s growing population.
Values

• **Informative**: we will bring clarity to the topic of Energy Transition, emissions reduction, decarbonization. Each member to lead a session.

• **Insightful**: we will seek outside perspectives to gain foresight in the space

• **Collaborative**: share views and foster collaboration on innovative technologies and approach. Suggest a coordinate approach on industry positioning and external communication on the matter
A BALANCED PURPOSE?

ACCELERATE THE PATHWAY TO NET ZERO

August 2020

David Rabley
The energy transition will be unlike any other; today’s energy system will be radically changed

### Previous Energy Transitions

<table>
<thead>
<tr>
<th>Goals</th>
<th>Supply Driven</th>
<th>Demand-driven:</th>
</tr>
</thead>
<tbody>
<tr>
<td>- Discovery or creation of a better energy source</td>
<td>- Need to decarbonize consumption</td>
<td></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Proponents</th>
<th>Asset owner-driven:</th>
<th>Society &amp; stakeholder-driven</th>
</tr>
</thead>
<tbody>
<tr>
<td>- Pursuit of value creation</td>
<td>- Pursuit of environmental betterment</td>
<td></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Scope</th>
<th>Sector-driven:</th>
<th>Globally-driven:</th>
</tr>
</thead>
<tbody>
<tr>
<td>- Certain fuel sources &amp; sectors in certain geographies</td>
<td>- Required across all sectors &amp; geographies</td>
<td></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Timeframe &amp; Economics</th>
<th>Classical economics-driven:</th>
<th>Externality &amp; deadline-driven:</th>
</tr>
</thead>
<tbody>
<tr>
<td>- ~50 years of innovation &amp; ~50 years of diffusion</td>
<td>- Race against 2050 emissions reduction goal</td>
<td></td>
</tr>
</tbody>
</table>

| Demand less influenceable than supply | Imperative for change goes beyond (near term) financial results | Distributed responsibility for coordinated action | Need for new markets and re-pricing |
Three types of action will set the pace and success

**CLEAN THE CORE**
- Minimize emissions and maximize efficiency from current infrastructure & value chains

**ACCELERATE THE TRANSITION**
- Replace today’s sources of energy and methods of consumption with cleaner and zero emission alternatives

**EXTEND THE FRONTIER**
- Scales solutions commercializes beyond what is feasible today

**PLUS NEGATIVE EMISSION TECHNOLOGIES**
- Bio-energy with carbon sequestration (BECS), Direct Air Capture (DAC) and Reforestation

---

* CO2 Equivalent reduction potential from 2050 Business as Usual to 2050 Accenture Stretch case

---

Copyright © 2020 Accenture. All rights reserved.
Embedding carbon “as a currency” opens new roles across supply chain

- Accreditation and assurance of emissions measurement & reporting process, including “asset grade data”
- Reports scope 1, 2 & 3 emissions to relevant stakeholders and integrates with financial models and metrics (e.g. for TCFD Scenarios) and compliance systems
- Single and auditable source of data truth

- Innovate, identify and catalogue actions / interventions to reduce, replace and offset Scope 1, 2 and 3 emissions
- Includes financial and performance metrics of interventions at asset and portfolio levels
- Tracks execution of interventions and disseminates learning and best practice

- Enables productization of commodities e.g. ESG-attributed fuels
- Creates a platform for integrated energy solutions
- Allows transactions of carbon and other accredited Environmental Attribute Certificates

- Help set scope 1, 2 & 3 absolute and intensity targets against Science Based and other decarbonisation glidepaths
- Helps allocate targets across assets, business units, market units, and employees, over time
- Tracks performance against targets

- Forecasts emissions to track against decarbonization glidepaths
- Simulates financial impact of different emissions, carbon cost and interventions scenarios at asset and portfolio levels and supports definition of optimized response
- Informs portfolio, capital plan, M&A, operational, HR decisions

Measure & Monitor

Record, Audit & Report

Target & Performance Management

Reduce, Replace, Optimize & Offset

Predict & Rebalance Portfolio

Customer Trade & Monetize
Goals and Deliverables in 2020

• **Supply chain support to the industry** – Members will increasingly find themselves being asked by their customers for specific and detailed emissions data. Support PESA ET members’ understanding about the role they will play in reporting Scope I, II and III emissions data.

• **Policy Support** – “Own your narrative” Develop policy statements that support and incentivize energy transition adoption. Support methane regulations, CCUS, hydrogen, energy storage are key elements of the energy transition and provide significant upside opportunity for PESA members to serve their customers in these spaces.
Governance and Operating Rhythm

• 2-3 meetings before year end (will rotate facilitation)
  +
• 1 event per quarter for the remainder of 2020... some ideas:
  o External perspective on Natural Gas
  o Experts to walk organizations through CDP reporting
  o Investor focus on Energy transition