



Net Zero Emission (NZE) in Oil & Gas Industry

## Taufik Aditiyawarman Ketua IAFMI

Ikatan Ahli Fasilitas Produksi Minyak dan Gas Bumi Indonesia

Organized by:

Co-organized by:





www.dyandra.co member of Dyandras

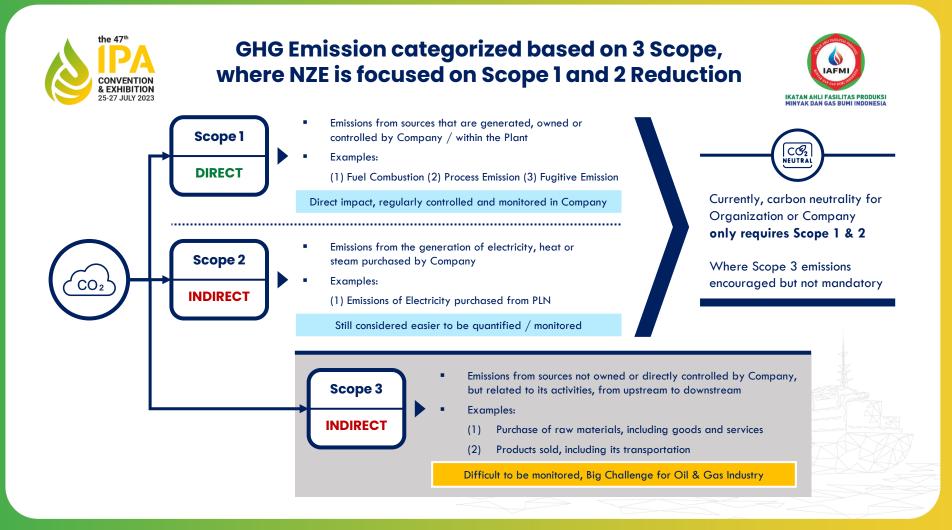




**D**(f)

9







## Summary of Three Ways to Decarbonize Oil & Gas Industry

₿]@

**Green Business** 

Initiatives

**Carbon Offset** 

Trading

Nature Based Solution



There are 3 ways to decarbonize Oil & Gas Industry; (1) By Technology, (2) By Natural Use, (3) Buy / Sell (Trading)

Energy Efficiency

Each has different considerations to be applied

### **Elements of Consideration**

- Easier to monitor / under company control
- Immediate impact on Scope 1 or 2
- Requires technology and considerable investment

#### Providing wide range of benefits apart from emission reduction, including environmental and climate preservation

- Requires robust methodology to measure
- Concerns over the reliability and cost-effectiveness compared to engineered alternatives
- Immediate claim to environmental benefits from offset project
- Need to motivate companies to reduce carbon emissions (some companies may produce even more carbon emissions)
- The price of carbon offset in the future can be very expensive due to tighter regulation



## Strategic Initiatives to Achieve Net Zero Emission in Oil & Gas Industry



Initiatives	Details
Minimize Flare Loss	<ul> <li>Flare Gas Recovery System (FGRS) that focuses on Near-zero flaring while recovering valuable waste gas that can be reused as fuel or feedstock</li> </ul>
Energy Efficiency Otilization of External Utility Sources	Use of external renewable sources to minimize fuel usage / own used in plant
Advanced Process Control (APC)	<ul> <li>APC focuses in optimizing process variables to maximize yield and quality of products while at the same time maintaining low carbon footprints / emission</li> </ul>
Low Sulphur Product	<ul> <li>Production of eco-friendly products with lower sulphur level</li> <li>Examples of low sulphur product: EURO V Gasoline &amp; Gasoli, MFO-LS / LSFO</li> </ul>
Business Carbon Neutral Fuel	<ul> <li>Production of carbon neutral fuel such as HVO, SAF, Hydrogen, Methanol, and Ammonia for fossil fuel substitution and alternative renewable feedstock</li> </ul>
Carbon Capture, Utilization & Storage	<ul> <li>Process of capturing carbon dioxide emissions to be used for building materials (utilization) or permanently storing it below the surface (storage)</li> </ul>



# Thank You

Organized by:







Supported by:



Co-organized by:



www.dvandra.com member of Dyandrasco.





**IG**