



Energy & Resources Industry

The Era of AI & the Energy Industry

JULIAN MORENO

Industry Advisor,
Microsoft Energy & Resources Industry



Global snapshot



~8 billion people

- Population rate of increase ~67mm/year
- ~1B people have no access to electricity, first global increase of 20 million in 2022



\$13 trillion AI GDP impact

- By 2030, AI has potential to add 16% (\$13 Trillion) to the global economy
- 6-9% of people will be working in professions that don't yet exist by 2030



7.6Gt of CO₂ must be captured by 2050

- Global CO₂ grew 321Mt to all-time high of 36.8Gt in 2022
- Renewable energy share must increase to 70% by 2050



Vertical trends: Oil & Gas

Key trends



Evolving global energy demand likely to result in peak oil in next few years



Increasing role of natural gas in power generation for coal substitution and firming renewables



Continuing and heightened focus on decarbonization with organizations adopting multi-levered approaches



Economic conditions driving a wave of M&A activity



GenAI enabling for enhanced operations, forecasting, and productivity



Continued focus on workplace safety – A core priority

Global challenges



Uncertainty created by a shifting energy landscape and policy environment



Balancing demands of core business, new business and decarbonization



Workforce shortage



Accelerated move to cloud and investment in data foundations



Complex and growing cybersecurity threat landscape



Increasing agility in responding to market or supply chain disruptions

In moments of uncertainty

The only path forward is continued and accelerated innovation



**Agile, resilient and
secured value chain**



**Decarbonization and
sustainable energy transition**



**Attract, reskill the
future workforce**

Microsoft for Energy & Resources

Accelerate the energy transition with data and AI



Empower the energy workforce

Automate workflows and improve AI-enabled recruiting, learning, and training for seamless collaboration.



- Digital field worker
- Talent management & skills enhancement
- Knowledge management & collaboration
- Productivity & process improvement



Operate for a new energy future

Optimize supply chains, secure assets, and power the intelligent energy system with AI to increase productivity.



- Health & safety
- Intelligent supply chain
- Connected assets & operations
- Physics-based models



Achieve net zero commitments

Transform data to reduce GHG emissions, scale carbon-free energy, and decarbonize the energy value chain.



- Manage emissions & environmental performance
- Manage & reduce carbon
- Enhance renewables & decarbonize the grid
- Power the intelligent grid



Grow sustainable, AI-powered businesses

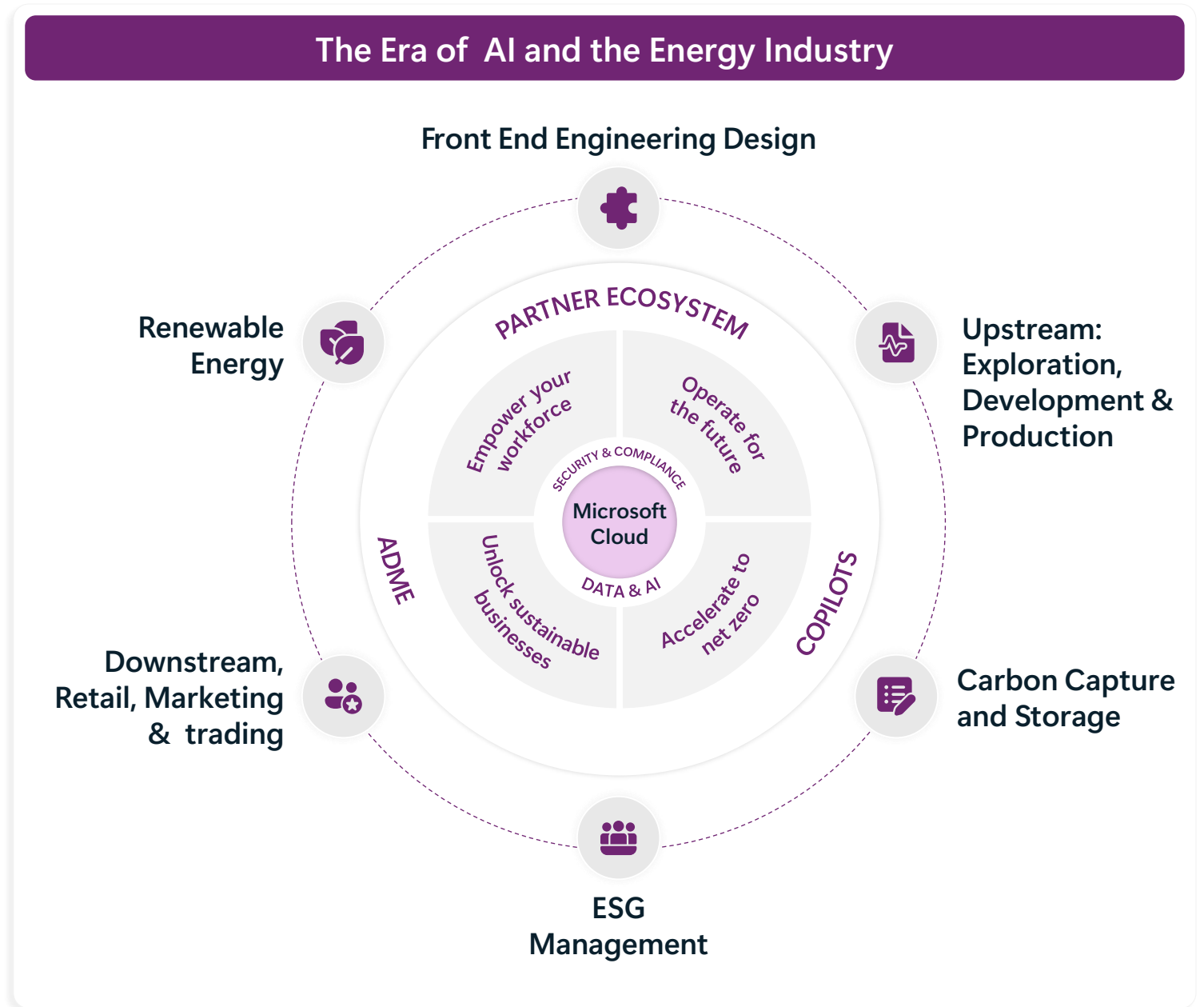
Unlock data insights that accelerate climate innovation, sustainability progress, and business growth.



- Accelerate energy efficiency
- Scale EVs
- Business innovation
- Enhance sustainable industries

- | | | | | | | | |
|---------------------|------------|----------------|----------------------|----------------|-------------|--------------|-------------------|
| • Accenture/Avanade | • Itineris | • AspenTech | • Halliburton | • Context Labs | • Itron | • Amperon | • Granular Energy |
| • AVEVA | • Neudetic | • Baker Hughes | • Schneider Electric | • EY | • Kongsberg | • esri | • Iconics |
| • Celebal | • SAP | • Cognite | • SLB | • Honeywell | • Wipro | • GE Vernova | • Noble.AI |

Microsoft is the AI Platform for the Energy Industry





Thank you!

JULIAN MORENO

Industry Advisor,
Microsoft Energy & Resources Industry

julian.moreno@microsoft.com