



# **AMMONIA ENERGY**

## ASSOCIATION

**Mission:** The AEA is a global industry association that promotes the responsible use of ammonia in a sustainable energy economy.

**Supply:** decarbonize ammonia production

**Demand:** adopt ammonia in energy markets

**260+ Members:** global and cross-sectoral

Membership Information Packet — July 2024

# Joining the AEA

AEA Membership is open to all corporations, with no application or approval process. You may wish to review our [Bylaws](#) and [Anti-Trust Policy](#), which are available on our website.

**Step 1** - Select a membership tier and contact: Alexandra Johnson, Manager of Membership, [ajohnson@ammoniaenergy.org](mailto:ajohnson@ammoniaenergy.org).

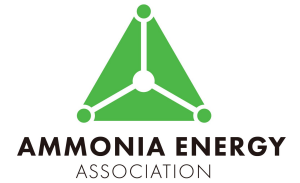
**Step 2** - We will revert with the appropriate invoice. Membership fees are for 12 months, payable via wire, check, bank transfer, or credit card. Annual renewal date is the earlier of a) date of payment or b) use of member benefits. Please note that a 3% surcharge applies to credit card payments exceeding \$2,000.

**Step 3** - Complete the onboarding survey, used to collect all the necessary information to deliver membership benefits.

**Step 4** - Meet our team. During the onboarding process, you will meet the AEA team who will ensure your organization receives the maximum benefits from membership.

**Step 5** - Get engaged. Throughout the onboarding process, details on working groups, committees, and meetings will be shared so that you may select which opportunities are the best fit for your organization.

# Membership Tiers



Companies may select any tier. The following is intended only as a guide.

**Member:** Benefits for 1 or 2 individuals. Primarily for listening and learning, or for deeper engagement from small firms or sole proprietors.

**Silver:** Benefits for up to 5 individuals. For companies developing ammonia energy business lines: listening, learning, launching, and seeking visibility and engagement in AEA initiatives.

**Gold:** Benefits for up to 10 individuals. For organizations seeking to drive change, take a prominent role, and direct AEA strategy and advocacy.

**Platinum:** Benefits for unlimited individuals. Industry leader, driving transformation and steering AEA executive and initiatives.

2024 Membership Fees	Member	Silver	Gold	Platinum
Large Company	\$1,575	\$5,250	\$10,500	\$21,000
Small Company	\$1,050	\$3,150	\$6,300	\$12,600
"Small" is all of	<100 employees, <\$10M revenues, <\$10M balance sheet			

# Knowledge Stewardship



The AEA serves as a global knowledge hub, spreading information and sharing insight into the technologies, markets, and policies that are relevant to the adoption of ammonia energy.

By making these resources available to the public, the AEA educates the global community, showcases projects and opportunities, and promotes the responsible use of ammonia, supporting the business objectives of our members.

We also aim to highlight the work of our members, through good reporting as well as high-quality programming of webinars and conferences.

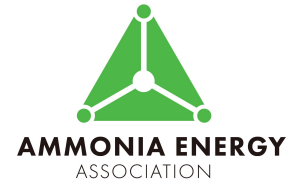
Our objectives are:

- to provide access to the best available information
- to build credibility and context for public announcements
- to establish compelling narratives to support public acceptance
- to promote a culture of transparency and responsibility
- to increase market confidence, and ultimately
- to accelerate the adoption of ammonia as an energy commodity.

Educate | Legitimize | Accelerate

Public Resources	
Newsletter	Weekly e-mails to summarize news, events, and advancements that are relevant to ammonia energy. Regular editorials provide thought leadership and describe important trends.
Library	Web archive containing 850+ newsletter articles (since 2013) and 600+ conference presentations (since 2004). Searchable by topic, organization, or location.
Webinars	Interactive 60-minute webinars providing deep insights into a project from our Global Project Lists. Webinars are free to view live or through our web archive. We host two webinars each month, one focused on Low-Carbon Ammonia Plants and the other on Ammonia as a Maritime Fuel, since early 2022.

# Member Benefits



## Engagement

Member Notices, which we deliver weekly via e-mail, inform members of the AEA’s current activities and opportunities for engagement.

Regular programming creates time and space for members to showcase, network, collaborate, and contribute to AEA initiatives:

- monthly webinars
- quarterly member meetings
- working groups
- stakeholder consultations.

All members are eligible to be considered for election to the AEA’s Board of Directors, which meets quarterly.

## Resources

AEA hosts a Member Directory. The version on the website enables members to promote themselves to the public. A more detailed version is available only to members and contains contact details (opt-in basis), encouraging and enabling our members to connect with each other.

AEA maintains two market intelligence databases, providing up-to-date insight into global project development. Each is an excel database with details on >100 publicly announced projects in operation/development:

- Low-Carbon Ammonia Plants
- Ammonia as a Maritime Fuel.

## Connect | Collaborate | Community

	Membership Tiers			
	Member	Silver	Gold	Platinum
<b>Registered Users</b> (the number of employees able to participate in member activities)	2	5	10	Unlimited
<b>Voting weight</b>	1	2	3	4
<b>Logo Display (web and print)</b>		Small	Medium	Large
<b>Sponsorship Opportunities</b>		3 <sup>rd</sup> choice	2 <sup>nd</sup> choice	1 <sup>st</sup> choice
<b>Seat on Strategy Committee</b>			✓	✓
<b>Seat on Executive Committee</b>				✓

# Events

Members receive exclusive invitations to AEA conferences, which are for members and invited speakers only.

In addition to our own events, the AEA has developed strategic partnerships with conference producers around the world, enabling us to provide benefits to our members through:

- discounts to attend or exhibit at commercial conferences
- targeted speaker opportunities to promote our members.



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# ANNUAL CONFERENCE 2024

November 11 – 13, 2024  
New Orleans, USA  
InterContinental New Orleans

# Organizational Growth

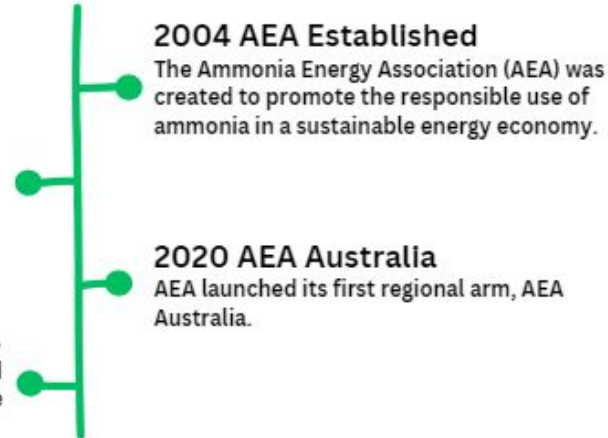


## 2018 AEA relaunches as a trade association.

In 2018, AEA relaunches as a global, non-profit trade association. This growth has enabled us to bring on staff to begin delivering the value that our early members envisioned.

## 2023 AEA grows to 200+ members.

AEA currently has a network of 220 members and nine staff members working diligently to achieve our mission.

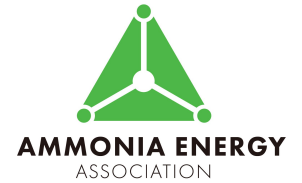


	2018	2019	2020	2021	2022	2023
<b>Members</b>	14	30	70	115	175	220+
<b>Revenue \$</b>	44k	87k	219k	521k	991k	1.39 M
<b>Staff (FTE)</b>	0	1 (0.5)	1 (0.6)	4 (4.2)	7 (6.5)	9 (8.5)

## AEA Team

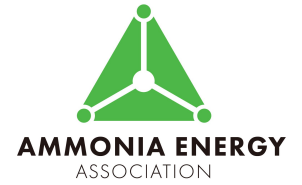
<b>Trevor Brown</b>	Executive Director	New York, USA
<b>Rich Gemelaris</b>	Chief Operating Officer	Washington, D.C., USA
<b>Andrea Guati Rojo</b>	Stakeholder Relations Manager	Madrid, Spain
<b>Julian Atchison</b>	Communications Manager	Melbourne, Australia
<b>Geoffrey Njovu</b>	Research Analyst	London, England
<b>Randi Hertzberg</b>	Communications	Washington, D.C., USA
<b>Kevin Rouwenhorst</b>	Technology Manager	Rijssen, Netherlands
<b>Madhav Acharya</b>	Project Manager, Certification	Vienna, USA
<b>Oscar Pearce</b>	Certification Specialist	Canberra, Australia
<b>Alexandra Johnson</b>	Membership Manager	Orlando, USA
<b>Denise Sheehan</b>	Meeting Planner	Washington, D.C., USA

# AEA Strategic Objectives



Knowledge Stewardship	Program Development	Collaboration	Advocacy
<p>The creation, collection, organization, and sharing of knowledge for the responsible use of ammonia in a sustainable energy economy.</p> <p><b>Articles</b> <b>Newsletters</b> <b>Whitepapers</b> <b>Market Intelligence</b> <b>Webinars</b> <b>Conferences</b> <b>Presentations</b></p>	<p>Strategic initiatives critical to ammonia energy, including development and adoption of global industry standards.</p> <p><b>Certification</b> <b>Fuel Standards</b></p>	<p>Building connections across the ammonia energy value chain by enabling member connections, hosting networking events, facilitating collaboration on industry-wide initiatives, and sharing communal resources</p> <p><b>Committees &amp; Working Groups</b> <b>Stakeholder Consultations</b> <b>Workshops</b> <b>Coalition building</b> <b>Networking</b></p>	<p>Identification, development, and advocacy for supportive policies in leading-edge jurisdictions.</p> <p><b>... in development for 2H 2023</b></p>

# Ammonia Certification



The AEA is developing a certification scheme for ammonia, to account for the GHG emissions associated with production.

Our design principles include:

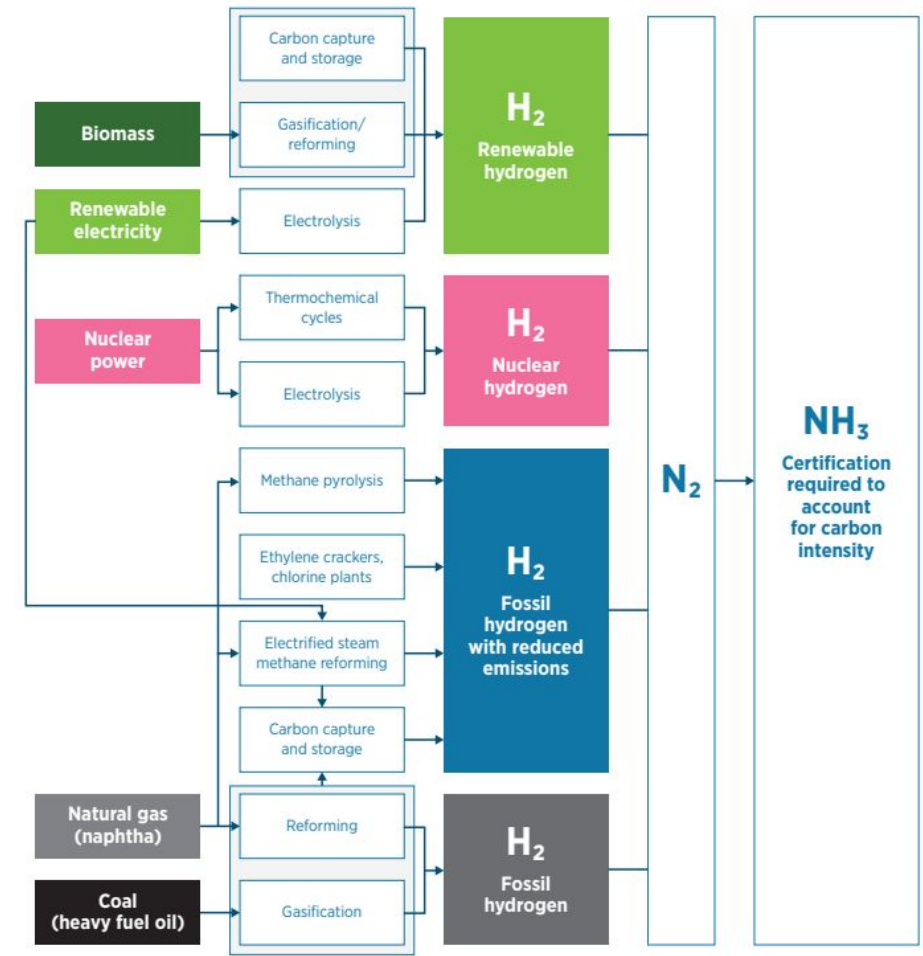
- **Absolute GHG emissions**, site-specific, measured not modelled
- **Well-to-gate**, including upstream Scope 3
- **Technology neutral**, including fossil, renewable, bio, nuclear
- **Tradable**, enabling the low-carbon ammonia commodity market

AEA is not defining colors (green/blue), or labels (clean/low-carbon) but collecting credible and transparent data, enabling producers to demonstrate relevant attributes to consumers of ammonia.

AEA Member-led working groups, including international affiliates, are currently developing the design principles and methodologies.

- Design phase is concluding, mid-2023.
- Implementation phase (the pilot scheme) will launch in Q1 2024.

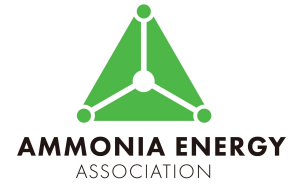
<p>Certification Working Group 1: Principles, Methods and Governance</p>	<p>Certification Working Group 2: Ammonia Pathways</p>	<p>Certification Working Group 3: Markets, Policies and Regulations</p>
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Ammonia pathways. IRENA and AEA (2022), *Innovation Outlook: Renewable Ammonia*, <https://www.irena.org/publications/2022/May/Innovation-Outlook-Renewable-Ammonia>



# Ammonia Certification



The AEA's strategic objective is to support **global harmonization of ammonia certification** across multiple regions and sectors.

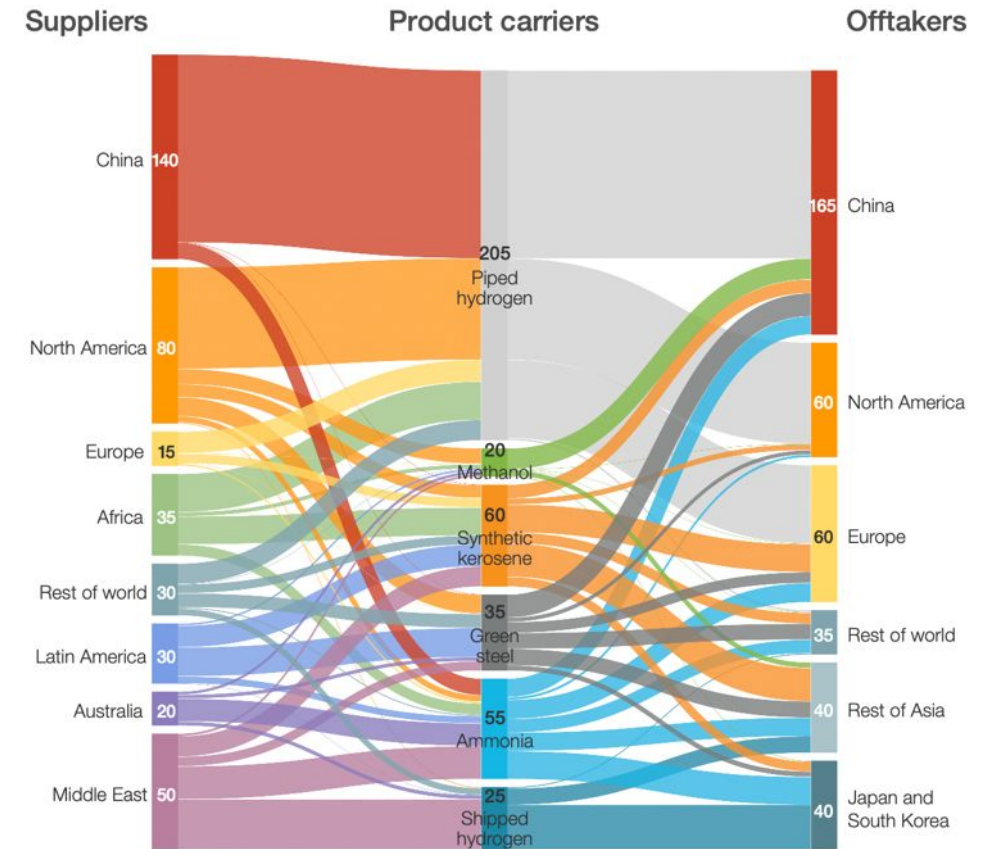
Multiple relevant certification schemes are already in development:

- ISCC+
- IMO
- Fertilizers Europe
- Green Hydrogen Organization ... and more will come this year.
- Australian Government GO
- The Fertilizer Institute
- TUV Rheinland
- CertifHy

We need to work together on:

- **International harmonization**, building upon ISO and IPHE.
- **Data standards**, for comparability between schemes.
- **Mutual recognition**, for compatibility between schemes and acceptability across jurisdictions.
- **Modular certification**, for feedstock/carrier conversions, transportation & storage, and specific regulator requirements.

Global hydrogen and derivative interregional long-distance supply,<sup>1</sup> million tons per annum



1. Excludes local production and distribution.

*Global Hydrogen Flows: Hydrogen trade as a key enabler for efficient decarbonization.* Hydrogen Council (October 2022), <https://hydrogencouncil.com/wp-content/uploads/2022/10/Global-Hydrogen-Flows.pdf>

# AEA Members: July 2024

\* indicates representation on Board of Directors

**PLATINUM:** bp, CF Industries\*, Chemenergy Services PTE Ltd, Chevron New Energies, Copenhagen Infrastructure Partners, CWP Global\*, ExxonMobil\*, Hy Stor Energy\*, InterContinental Energy, KBR\*, LSB Industries\*, Mitsui & Co., Monolith Materials\*, Reliance Industries, Yara\*. **GOLD:** ACME Group\*, AFC Energy, AirGas\*, Air Liquide, Ambient Fuels\*, Baker Hughes, Casale, China Energy Group, Clean Hydrogen Works, Enaex\*, Eolian Energy, Equinor, Fertiglobe, Fortescue Future Industries\*, FuelPositive, Horisont Energi, Incitec Pivot, Indorama, Keppel Infrastructure\*, LBC Tank Terminals\*, Maersk\*, Mitsubishi Heavy Industries, Nutrien\*, Origin Energy, Proton Ventures, S&P Global Commodity Insights, thyssenkrupp Uhde\*, Topsoe\*, Trammo, Trigon. **SILVER:** AES, Air Products, Ammonigy, Argus Media, ATCO EnPower, Avalon, BASF, Bechtel, Black & Veatch, Bloom Energy, Bureau Veritas, Burns & McDonnell, Christof Group, Clariant, CMA CGM SA, ControlRooms.ai, Copernic Catalysts, CREADIS, CRU Group, CS Combustion Solutions, CTI Gas Detection Specialists, Cummins, DNV Energy USA, Duiker Clean Technologies\*, Emitec Technologies GmbH, Enbridge, Eneus Energy, Envision Group\*, European Institute for Energy Research (EIFER), Fertiberia, Fidelis New Energy, First Ammonia, Flexens, FZU Zijin Hydrogen Energy, GenCell Energy, Granel Quimica, Green Energy Park, Green Hydrogen Canada Inc., GreenGo Energy, GTI Energy, Gunvor Group, H2Site, Heraeus, HyFuels Holdings, Iberdrola\*, IHI Americas, Inherent Solutions Consult, inodú, ITOCHU Corporation, JERA, JGC Corporation, Johnson Matthey, Koch Fertilizer, KP Engineering, Linde, Liquium, Lotte Fine Chemical, Lynas Rare Earths, Mabanaft, MAE Energy, Mitsui OSK Lines, Monobuoy SARL, Nel Hydrogen, Oldendorff Carriers, Pani Clean, Pattern Energy, Phelan Energy Group, Savage Services, Shell, Skeiron, Stamicarbon, Starbulk Carriers, Stolthaven Terminals, Switch2, Synergy Marine Pte Ltd, Technip Energies, Torrent Power Ltd, TotalEnergies\*, TrittenIAG, Tsubame BHB, UH2, Vesta Terminals B.V., Woodside Energy, World Energy GH2. **MEMBERS:** 8 Rivers, AB Achema, ABB Inc., ACEN Australia, Advanced Ionics, Advanced Thermal Devices, Advario, AHEAD Energy\*, Alsys Group, American Tank & Vessel, Ammobia, Amogy, Antea Group, ARCLES, Arhyze, Arizona Public Service, Ark Energy, AustriaEnergy, Authentix, Avaada Energy, Avina Clean Hydrogen, Axetris, Aza Power Systems, Blaze Energy Technologies, Blue Power Partners, Brittany Ferries, B. Rock Consulting, C-Job Naval Architects, C-MACC, C-Zero, Capital Gas Ship Mgt. Corp., Caption Energy Ltd, Carbon-Neutral Consulting\*, CDI Engineering Solutions, Chemical Market Analytics, Chiyoda Corp., Clearway Energy Group, Copenhagen Atomics\*, Danaos Shipping, DBI Fire and Security, DUBBL Pty Ltd., Ebara Elliott Energy, Elevar Partners, Energy Estate, Energy Transfer, EnRUD Resources, Evergy, Exmar Marine DNV, Farm Synthesis, Fourth Tack, Furstenberg Maritime Advisory, GASMAR, Globeleq, GoSolar, Greenfield Nitrogen, H2Carrier, Hefei Hydrofusion Technology, HDR, Inc., Hiringa Energy, Honeywell, Hunt Guillot & Associates, Ignis Group, Ingenostrum, Inpex Corporation, Interlock Energy, Intersect Power, IT Power Australia, Johnson Controls, Jupiter Ionics, Jurong Port, Karachaganak Green Energy Corporation, Koole Terminals, LONGi Hydrogen, Mainspring Energy, MAN Energy Solutions, MAYEKAWA, Moda, MODEC, Mysore ACS, Nebraska Public Power District, Neology, Netsco, Next Hydrogen, NGLStrategy, Nikki-Universal, Nordex, Northern Nitrogen, Northern Plains Nitrogen, NOV, NovoHy, NYK Energy Transport (USA), Oceanic Vessels, OCI Global\*, OPIS, Pacifica Energy, Pacifico Energy Solutions, PepsiCo, Pin Oak Group, Plastic 2 Green, Polyatomic Ventures LLC, Poten & Partners, Radia, ReMo Energy, RTE International, RWE Supply & Trading GmbH, Samson Group, SBM Offshore\*, Serena Energy US, Shrieve Chemical Company, Siemens Energy, SK Innovations, Southern Devall, Stamford Shipping, StormFisher Hydrogen, Stamford Ship Management, Strata Clean Energy, Sumitomo Corp, Suzlon Australia, Svanehoj Danmark, Syzygy Plasmonics, TasRex, Terrestrial Energy, TGE Gas Engineering, Thermon, Toyo USA, TRIARC Tank, Umicore, Uniper, Vahterus, VeryOne Inc, Voltalia, Vopak, Wood Mackenzie, Yokogawa Corp of America.

