

# Environmental Technologies Trade Advisory Committee (ETTAC)

Meeting #2
2022-2024 Charter
June 20, 2023

# WELCOME

## **Agenda Overview**

9:15-9:30 am Welcome & Committee Business

9:30-10:00 am Subcommittee Readouts

10:00-10:45 am Briefing: U.S. National Standards Strategy

**10:45-11:15 am** Briefing: 2019 Envirotech Top Markets Report

11:15-11:30 am Break

11:30-12:30 pm Panel: U.S. International Cooperation

**12:30 – 1:15 pm** Lunch

1:15 - 2:15 pm Panel: Trade Leads

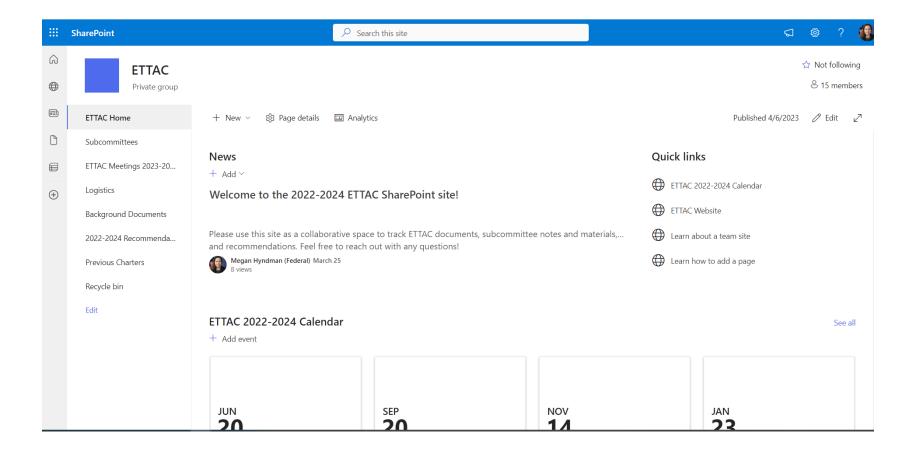
2:15-3:15 pm Subcommittee Breakout Meetings

3:15-3:30 pm Readouts, Public Comment, Adjourn

## **Ground Rules & Digital Best Practices**

- Keep microphone muted unless you are speaking
- Video on throughout the meeting
- Use head phones to improve audio and minimize background noise
- Bottom Line Up Front & ELMO
- Strive for consensus

### **ETTAC SharePoint Overview**



# SUBCOMMITTEE READOUTS

# Briefing: U.S. National Standards Strategy for Critical and Emerging Technology

ETTAC Meeting June 20, 2023

Jayne Morrow, Senior Advisor to the Director, National Institute of Standards and Technology

Anthony Quinn, Standards Team Lead, ITA



# **Briefing: Environmental Technologies Top Markets Report**

**ETTAC Meeting June 2023** 

**Megan Hyndman Office of Energy & Environmental Industries** 

# **Environmental Technologies Top Markets Report**

- Detailed analysis of best prospect markets for U.S. environmental technology exports. Consists of:
- Quantitative Analysis: Provides individual rankings for air, water, and waste & recycling sectors
- Qualitative Analysis: Highlights opportunities and challenges in exporting to key markets
- Tool for industry and the U.S. interagency





2019 report available at:

https://www.trade.gov/environmental-technologies-industry

### **2019 Best Prospect Markets for Environmental Technologies**

	COMPOSITE SCORE		
1	China	100.0	
2	Mexico	88.0	
3	Brazil	34.4	
4	Korea	32.1	
5	Vietnam	30.1	
6	India	29.3	
7	Indonesia	29.3	
8	Saudi Arabia	28.2	
9	Turkey	26.8	
10	Colombia	14.3	
11	United Arab Emirates	13.6	
12	Thailand	11.8	
13	Singapore	11.7	
14	Egypt	11.0	
15	Malaysia	10.4	
16	Chile	10.0	
17	Nigeria	8.5	
18	Peru	8.5	
19	Algeria	8.0	
20	Angola	7.0	
21	Belarus	5.7	
22	Oman	5.4	
23	Israel	4.8	
24	Macedonia	4.7	
25	Bangladesh	4.2	

	WATER RANKING			
1	China	51.5		
2	India	16.5		
3	Saudi Arabia	14.8		
4	Mexico	13.9		
5	Brazil	12.0		
6	Vietnam			
7	Colombia	10.2		
8	Indonesia	9.1		
9	Korea	7.6		
10	Thailand	7.5		
11	United Arab Emirates	7.2		
12	Malaysia	7.1		
13	Angola	6.2		
14	Chile	6.1		
15	Singapore	5.9		
16	Peru	5.8		
17	Algeria	4.7		
18	Macedonia	4.2		
19	Oman	3.7		
20	Nigeria	3.5		
21	Turkey	3.5		
22	Egypt	3.3		
23	Ghana	3.3		
24	Belarus	2.8		
25	Bangladesh	2.5		

	AIR RANKING	
1	Mexico	72.3
2	China	43.4
3	Korea	23.3
4	Turkey	20.4
5	Brazil	19.2
6	Vietnam	15.8
7	Indonesia	13.6
8	Saudi Arabia	10.4
9	India	10.1
10	Egypt	6.5
11	Nigeria	5.0
12	Singapore	4.4
13	United Arab Emirates	4.1
14	Chile	3.7
15	Colombia	3.3
16	Israel	2.9
17	Algeria	2.6
18	Malaysia	2.6
19	Peru	2.4
20	Oman	1.6
21	Belarus	1.6
22	Dominican Republic	1.4
23	Thailand	1.3
	Bangladesh	1.0
25	Philippines	0.9

	WASTE RANKING	
1	Indonesia	6.6
2	China	5.1
3	Vietnam	3.4
4	Brazil	3.2
5	Saudi Arabia	3.0
6	Thailand	2.9
7	Turkey	2.9
8	India	2.7
9	United Arab Emirates	2.3
0	Mexico	1.7
1	Singapore	1.4
2	Belarus	1.3
3	Korea	1.3
4	Egypt	1.2
5	Qatar	1.0
6	Colombia	0.8
7	Algeria	0.7
8	Bangladesh	0.7
9	Malaysia	0.7
0	Ethiopia	0.4
1	Ivory Coast	0.4
2	Pakistan	0.3
3	Philippines	0.3
4	Peru	0.3
5	Sri Lanka (Ceylon)	0.3

# **Country Case Studies**

- Overview of regulatory environment
- Market opportunities and challenges
- Specific technologies and services in demand
- Interagency programs and initiatives in the market
- List of contacts

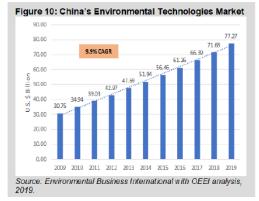
#### **China Case Study**

China ranks first overall on the 2019 Top Markets Report, with a Composite Environmental Technologies Score of 100. China also ranks first for the water sector, with a score of 51.5. China ranks second for both the air pollution control and waste and recycling markets, with scores of 43.4 and 5.1, respectively (see Appendix 1 for global rankings).



China is the largest and one of the fastest-growing emerging markets for environmental technologies. The overall environmental technologies market in China (including goods and services) is estimated to be valued at \$77.27 billion in 2019. [1] The scope, size, and expected growth of China's market for environmental technologies is unmatched, but market barriers — particularly those related to protection of intellectual property — continue to make China a challenging market in which to operate.

#### **State of the Environmental Regime**



China's environmental regime has improved significantly in recent years with the development of a national legal framework that supports the mitigation of pollution across all three environmental mediums, coupled with significantly stronger enforcement of related rules and regulations.

China fundamentally restructured its approach to environmental enforcement with the introduction of its amended Environmental Protection Law (EPL) in 2014. The revised EPL took effect at the beginning of 2015. It serves as an enabling statute that could yield stronger adherence to

# **Country Case Study Example: China**

**Ambient Air Quality Monitoring** 

Industrial Air Pollution Reduction

**Power Plant Emissions Reduction** 

Mobile Source Emissions Control

Municipal Solid Waste & Waste to Energy

Recycling of E-Waste

Hazardous Waste Management

Scrap and Recyclables

Municipal Water and Wastewater Treatment

Water Transmission and Storm Systems

Sludge Treatment

Groundwater Monitoring, Pollution Prevent, Remediation

Water Efficiency and Reuse

**Process and Produced Water** 

**Soil Remediation** 

#### Industrial Air Pollution Reduction

In its Nationally Determined Contribution (NDC) for the December 2015 Paris Climate Agreement, China committed to reach peak carbon emissions by 2030 or earlier. China's NDC also calls explicitly for the control of emissions from key industries – specifically iron and steel, nonferrous metals, building materials, and chemicals. The 2016 amended Air Pollution Law follows on China's NDC commitments by expanding the list of centrally controlled pollutants beyond solely nitrogen oxides (NOx) and sulfur oxides (SOx) to include particulate matter, VOCs, and greenhouse gases. [53] If properly enforced, this emissions-reduction effort will require the implementation of control technologies at industrial sites. Industries that will be of the highest interest for the application of control technologies include iron, cement, and steel plants; oil refineries; non-ferrous metallurgical plants; coal boilers; and petrochemical plants. China's 13 the Five Year Plan on the Development of Energy Efficient and Environment Protection Industries also calls for the development and promotion of VOC management technology in the oil and gas, vehicle painting, and printing industries.

#### Key Technologies in Demand:

- Wet/dry scrubbers (particularly systems that remove multiple pollutants)
- Carbon injection systems (for reduction in mercury and organics)
- Particulate matter control systems (particularly new bagging systems)
- NOx, mercury, CO<sub>2</sub> and particulate matter monitoring and continuous monitoring systems
- Selective catalytic and non-catalytic reduction controls
- Oxygen enrichment, fuel injection, and other efficient combustion technologies
- Innovative specialty cements
- Mixing technologies
- Pumping and fluid handling equipment
- Engineering and plant design
- Leak detection equipment
- Alternative fuel technologies used to fire cement kilns

# **Overview of 2023 Top Market Research Process**

DATA SELECTION

# QUANTITATIVE ANALYSIS

QUALITATIVE ANALYSIS Select "proxy" HS6/HS10 codes for each ET subsector



Pull historical trade data for selected HS codes



Select other economic indicators

Perform statistical analysis/modeling



Produce country rankings

Perform qualitative research



Gather external feedback – ITA, interagency, industry



Develop country case studies

# **2023 Top Markets Report Indicators**

#### **Macroeconomic Indicators**

**GDP** 

**GDP** Growth

**EIU Operational Risk** 

Distance

**Exchange Rate Stability** 

#### **Trade Indicators**

U.S. Market Share of Foreign Market Imports

Tariffs on Environmental Goods

FTA/Preferential Trade Agreement

#### **Environmental Policy Indicators**

**Environmental Policy Stringency** 

**USG Environmental Assistance** 

**Environment-related Revenue** 

# **Proxy HS Codes**

2023	Sector	Description
8421.21.0000	Water	Filtering or purifying machinery and apparatus for filtering or purifying water
8421.99.0140	Water	Parts for machinery and apparatus for filtering or purifying water
8421.99.0180	Water	Parts for machinery and apparatus for filtering or purifying water - other
8421.32.0000	Air	Catalytic converters or particulate filters, whether or not combined, for purifying or filtering exhaust gases from internal combustion engines
8421.39.0105	Air	Dust collection and air purification equipment for machine tools heading 8456 through 8465, inclusive
8421.39.0115	Air	Dust collection and air purification equipment - Other; Industrial gas cleaning equipment
8421.39.0120	Air	Dust collection and air purification equipment - electrostatic precipitators
8421.39.0130	Air	Dust collection and air purification equipment - other
8421.39.0140	Air	Gas separation equipment
8421.39.0160	Air	Pneumatic fluid power filters, rated at 550 kPa or greater
8421.39.0190	Air	Dust collection and air purification equipment - other
9027.10.0000	Air	Gas or smoke analysis apparatus
8479.82.0080	Waste & Recycling	Mixing, kneading, crushing, grinding, screening, sifting, homogenizing, emulsifying, or stirring machines - other

# What Input Are We Seeking from the ETTAC?

- HS trade codes that your company/industry uses
- Reliable data resources that measure key environmental indicators, such as environmental regulatory environment and other factors that are strong predictors of U.S. exports
- Feedback on priority markets, opportunities, and challenges
- Ideas on how we can socialize the report to industry and leverage it to support U.S. exporters



# **Briefing: Environmental Technologies Top Markets Report**

**ETTAC Meeting June 2023** 

**Megan Hyndman Office of Energy & Environmental Industries**  Break

11:15-11:30 am

# Panel Discussion: Overview of U.S. Cooperative Efforts with International Partners

### **Discussion Topics**

Status of major U.S. multilateral and bilateral efforts with partners related to the environment, climate, and sustainability, including IPEF, U.S.-EU Trade and Technology Council, COP28, the U.N. resolution to end plastic pollution, and APEC.

### **Speakers**

- Jennifer Carton and Allison Smith, Office of Europe and the Middle East; Office of Environment & Natural Resources, USTR
- Sharon Yuan, Office of the Undersecretary, ITA
- Raffi Balian, Office of Environmental Quality, State
- Elliot Diringer, Office of the Special Presidential Envoy for Climate, State



# Panel Discussion: Generating & Sharing Trade Leads with U.S. Industry

### **Discussion Topics**

How the U.S. government identifies and shares information on foreign commercial project opportunities with the U.S. private sector, including through Commerce's trade leads program, State's Direct Line initiative, the Advocacy Center's liaison program with the Multilateral Development Banks, and USTDA's business development process.

### **Speakers**

- Haisum Shah, U.S. Commercial Service Portland, ITA
- Brian Wallace, Office of Commercial and Business Affairs, State
- Tanvi Madhusudanan, Indo-Pacific Country Manager, USTDA
- Chrystal Denys, Advocacy Center/EBRD, ITA

# **Agenda Check-in**

- Welcome and Committee Business
- Subcommittee Readouts
- Briefing: U.S. National Standards Strategy
- Briefing: 2019 Top Markets Report
- Panel Discussion: U.S. International Cooperation
- Panel Discussion: Trade Leads
- Subcommittee Breakout Meetings
- ☐ Readouts & Next Steps
- Public Comment & Adjourn

# Subcommittee Breakout Meetings

## **Next Steps**

- Subcommittees to convene once per month to coordinate research and deliberate on potential recommendations
- Subcommittees to let Clare and Megan know if would like to invite USG speaker(s) to speak on specific topics during subcommittee meetings or September 20th ETTAC meeting
- Save proposed recommendations in ETTAC SharePoint recommendations folders once in draft form
- NEXT ETTAC MEETING: September 20<sup>th</sup>

# **Meeting Dates for 2022-2024 Charter**

- April 11-12, 2023 (Tues-Wed)
- June 20, 2023 (Tues)
  - ☐ September 20, 2023 (Wed)
  - November 14, 2023 (Tues)
  - January 23, 2024 (Tues)
  - ☐ March 12, 2024 (Tues)
  - ☐ May 14, 2024 (Tues)
  - July 16, 2024 (Tues)

# **Public Comment**