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Environment Committee Meeting August 24, 2022





POWERS Program Updates Overview of Inflation Reduction Act (\$3 billion for port emissions reduction) Review of completed Environment Committee survey Discussion of future survey efforts

Agenda

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POWERS Program Updates:

•POWERS Summit & Exposition will be held January 24-26, 2023 at Port Tampa Bay

•Summit will include meeting of the AAPA Environment Committee

•Registration is live here

•Soon to come:

Solicitation of AAPA partner organizations and companies to express support for POWERS Platform
POWERS blog for ports and partners to share their work



PORT OPPORTUNITIES WITH ENERGY, RESILIENCE AND SUSTAINABILITY

•Register for AAPA Convention (October 16-19) in Orlando, FL



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Inflation Reduction Act: Port Emissions Reduction

- \$3 billion grant program created for port emission reduction
- Administered by the Environmental Protection Agency (EPA)
- Only zero-emission equipment is eligible
- \$750 million reserved for ports in non-attainment areas
- Grants can be spent on equipment, planning/permitting, or climate action plans
- Automated equipment not eligible
- Many "blanks" for EPA to fill in





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AAPA Environment Committee Survey Results

A survey of AAPA's membership on green infrastructure delivers a clear message: Ports are ambitiously pursuing new projects to mitigate emissions and strengthen resiliency, but they have unmet and technological needs to ensure cargo efficiency improves alongside energy security and environmental protection. These are the top findings:



of green infrastructure projects are planned at ports over the next ten years, but they need funding assistance from government to make it happen.



Ports are most interested in the following of project areas:

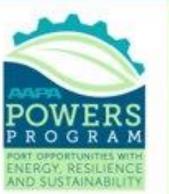
- electric cargo handling equipment
- shore power for vessels at berth
- electric grid infrastructure
- hydrogen energy infrastructure



of port authorities have a dedicated environmental services department.



are represented in ports' executive leadership





This result shows that the production and sale of alternative fuels represents a huge economic growth opportunity for the country. 8% of ports currently oversee the sale of marine fuels

58%

have begun studying projects to serve vessels with alternative fuels, including hydrogen, LNG, ammonia and methanol.



of port authorities have difficulty sourcing equipment and materials for green infrastructure from U.S. manufacturers.

\$100 million

is the median cost of a port's electrification plan. Port electrification can be expensive, and ports need government assistance to make improvements.



of ports have completed projects to electrify terminal equipment and fleet vehicles. Electrification of land-side equipment represents the most common type of electrification project.



Future Survey Efforts: Goals

- •Create a resource that ports can refer to when designing electrification projects
- •Supply contact information of project managers for ports to contact and learn from each other
- •Measure project details for comparison, for example:
 - •Funding sources
 - Interactions with power utilities
 - •Domestic vs. Foreign equipment and materials acquisition
 - Project timelines



Example Survey Questions: Shore Power

- 1. How many berths at your port are shore power compatible/how many are planned or under construction?
- 2. How many vessel calls per year do you currently have that utilize shore power? How many are expected in the future?
- 3. What was/is the cost of completed and planned shore power projects?
- 4. What funding sources were utilized to pay for these projects?



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