From The Editor

Some once thought maybe earthlings had found an answer to the world’s insatiable demand for electrical power. Nuclear energy, using reactors to produce steam to drive turbines and turn generators, could provide an all but inexhaustible source of cheap nonpolluting power. Or so we/they thought, until we understood we did not yet have an acceptable answer for how to handle the highly radioactive waste produced. Harnessing the power of the sun isn’t so simple.

Recently, concern has shifted to atmospheric carbon, a waste product of conventional power plants burning carbon-emitting fuels. They generate roughly 68 percent of U.S. electricity. Focus has shifted to minimizing carbon generated by reducing consumption, burning cleaner fuels and maximizing power from renewable sources that produce relatively little carbon. Most prominent among these are, hydro, wind turbines and solar cell arrays. Hydro accounts for about 7.5 percent and the other two combined contribute about 8.5 percent to the power...
Discouraging? Maybe, but we have relied on the industrial use of fossil fuels for at least a century and a half and hopefully it will not take us that long to find a substitute. We are making some progress. The floating wind towers in deep water being studied by the University of Maine and others are not the breakthrough that a solution to nuclear waste would be, but they address the aesthetic objections to wind turbine visibility close to shore and may help focus attention on looking seaward for more meaningful solutions.

To effectively contribute to one of the most important discussions on campus, all business leaders need to stay current—and this may be a step in the right direction.

Floating an Idea at the University of Maine

By: Neil Markee
Editor in Chief-Purchasing Link

Here on Long Island, and I suspect just about anywhere, few people want to sit on their decks or docks and watch a group of towering stately, wind turbines slowly rotating, as they generate the expensive, but clean, electrical power from renewable sources that seem to be the holy grail of future power-supply planning. "Not on my horizon" is likely to be what the protest signs will read. People just don't want to be locked into looking at those tall, slender, efficient-looking, engineering marvels—no matter how beneficial they are. You may recall the big-name congressional dust up a few years ago when a wind farm was proposed for the sound off Nantucket and within sight from land. Currently, similarly contentious sites are under consideration off the south shore and eastern tip of Long Island. Building them far enough offshore, to be over the horizon and invisible from shore, might be a solution. But constructing traditional sea-floor-based towers in very deep water would likely be expensive and challenging.

And there are other serious objections. Commercial fishermen seek bottom structure, banks and other relatively shallow areas to spread their nets, drag their trawls, and set their pots to catch the seafood that helps feed the nation and provides the income to support the families involved with the industry. Reasonably, they do not want scores of towers planted on what they see as their fishing grounds. They are certain, and entitled, to employ every political and legal means at their disposal to block the construction. Think, long delay!

There are legitimate complaints from the shipping industry as well. The sea lanes that approach major ports typically pass over the same near-shore bottom used by fishermen and targeted by wind power entrepreneurs. Every obstruction is one more hazard that must be avoided on a stormy or foggy night. Given inevitable human error and electronic and mechanical failure, we probably should anticipate collisions involving huge container ships or tankers hitting towers sooner or later. The essence of seaborne containerized or bulk commerce is speed, rapid turn-around, and schedule keeping. Profit margins are thin in the very competitive industries and anything that causes delay is a serious economic problem. Shippers would likely opt to go to less-encumbered ports. A possible answer to the aesthetic, commercial and safety issues might be to move the towers further offshore and away from sea lanes approaching ports. But as the water depth increases rapidly with distance off shore, soon the cost of building fixed towers very far offshore becomes prohibitive or beyond reasonable engineering capabilities.
That's the downside, but there may be viable solutions to many of these problems. The oil/gas industry has long addressed deep-water drilling problems by building moored floating platforms not resting on the sea bottom. Drilling technology allows several wells to be operated from one platform. The oil or gas extracted is delivered ashore to refineries or pipeline terminals via underwater pipelines or tankers. Floating rigs are self-contained and the scores of workers who operate the complex machinery involved nonstop live on board and rotated back ashore regularly. Typically these people are moved by helicopter. Food and any needed supplies are delivered by specialized small ships.

Why couldn't wind turbine towers be built on similarly sized platforms? They could, although the cost would be prohibitive. Oil/gas wells can be clustered in a relatively small area of the sea-floor area and served by one large-anchored platform, but wind turbines must be spread out because of the large area swept by their rotating blades. And they have no need for a large platform as their product, electricity, doesn't require processing before being transported. In effect, each wind turbine only needs its own small stable uninhabited floating platform. According to an article in the 9/30/16 New York Times, The University of Maine is working on what may be a solution. The article titled "Wind Farms See Promise in Platforms That Float" discussed a pilot project managed by the university. The project is partially financed by grants of $22.7 million from the energy department and another $39.9 million may be in the offing for completion. "Dr. Dagher (Habib Joseph Dagher) director of the university's Advanced Structures and Composites Center) said that if all went well, his team could have two full-scale turbines pumping electricity into the Maine grid in 2019 and larger commercial farms starting construction in the Gulf of Maine by the mid-2020s."

In addition to the University of Maine project, "Statoil, the Norwegian oil and gas giant, is already developing what could become the first commercial-scale floating wind farm, off the coast of Scotland." Other organizations involved with floating wind farms mentioned in the article include Seattle based Trident Winds and Emeryville California based Principle Power."

"Various types of floating wind platforms are in the works, but two are closest to commercial availability. Statoil's design, known as Hywind, attaches the turbine to a special buoy that uses a steel cylinder filled with water and rocks as ballast—a floating structure that extends more than 300 feet beneath the water's surface. Principle Power's foundation, known as the WindFloat, sets the turbine atop one of three columns that are partly underwater and connected with a triangular frame." The University of Maine's prototype, part of a demonstration project called Aqua Ventus, is similar to the WindFloat. But the Aqua Ventus fixes the turbine on a floating, central, concrete pier attached by spokes to three others, a design that Dr. Dagher said would make it cheaper to produce."

The people involved recognize that cost is an obstacle. Floating wind farms are currently more expensive to build than the land-based variety and logic suggests that they will be more expensive to operate given the servicing difficulties involved and the hostile salt-water environment. Some participants however predict construction costs will come down as expertise matures. However, costs could well balloon as additional challenges are recognized. Wind power ashore is more expensive than cheaper conventional sources and I think it's probably reasonable to assume that power from floating farms will be even more expensive. There was no mention of the cost of leasing a sea-floor site from the federal government but the cost of leasing federal land in the west is becoming an issue.

Currently, land- or sea-based wind power is not a viable, large-scale alternative to fossil fuels. The search for low-cost renewable sources of clean power continues. However, this approach potentially offers a means to generate offshore wind power in areas where land-based or fixed-to-the-sea floor options are constrained.
wind turbine towers are not viable for political, environmental or other reasons. Moored approaches cause less damage to the ocean floor than fixed tower bases because of their smaller footprint. And there is another plus, "More than half of the United States' potential capturable off-shore wind capacity – more than what the entire nation can now produce—is in deeper waters," said Jose Zayas, who directs the Wind Energy Technologies Office at the federal Department of Energy.

What will it take to meaningfully reduce the planet's dependence on burning gas, oil and coal to produce electrical energy? An article by Amy Harder and Cassandra Swaet in the October 27, 2016 Wall Street Journal provided a list of the current significant sources of power. There was no mention of oil. Perhaps its contribution was bundled with Gas or included in "other." The chart was sourced from the Department of Energy. In any case, it seems obvious that weaning the nation and the planet off the first two sources will require many decades, given the magnitude of the challenge and our net progress since climate change became an issue.

<table>
<thead>
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<td>Solar</td>
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For a while, nuclear power was seen as the answer to reducing carbon in the atmosphere while producing cheap power. And nuclear may eventually be a major part of the solution, if we can find answers to the waste disposal and political issues. Both wind and solar require the availability of basically instantaneous back-up, should the sun be obscured or the wind die down or become too strong. Perhaps this is a role non-carbon producing nuclear might play. Because of the required backup, neither wind nor solar are completely green power sources, if the backup power is produced by burning oil, gas or coal.

While we are waiting for the major breakthroughs needed, wind, solar, thermal and other sources of clean power are being investigated. This article is about sea-based wind power generation. Alone, I doubt that floating or other wind turbines, as we know them, can be the answer, because of the cost and space required. But looking seaward and adding power from wave action, tides and ocean currents might add up to a significant source of reliable power.

Something big is happening at the University of Maine. What's happening on your campus?

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From the President
Posted By NAEP, Thursday, November 10, 2016

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Wow, how can it be November already? As we get closer to Thanksgiving and the holiday season, I am mindful of everything that I am thankful for, including the opportunity to serve as the NAEP President. Serving on the Board with an amazingly diverse group of individuals is truly an honor. I’m grateful to have developed relationships with our Board members, who are talented, active and engaged. The Board of Directors and NAEP staff are truly dedicated and focused on making NAEP an Association that provides the kind of value we need to be successful and relevant at our colleges and universities.

Having just returned from the NAEP Board and Association Leadership Program meetings, I am delighted to share that the regional leadership is also very strong. It was wonderful to meet the regional leaders and see how dedicated they are in their roles. They were all very eager to learn more about how to strengthen their knowledge in developing programs and leadership skills, so that they can work together to provide the very best programs for their regions and districts. If you’ve been to your regional or district meeting be sure to give your regional leaders feedback about the program. Your ideas and input are valuable and that information will help them—as they develop programs for 2018.

NAEP 2017 Annual Meeting: Register Early for Savings

Great Ideas. Great Expectations. Great Rewards

Registration for the NAEP 2017 Annual Meeting is currently open. Plan to be in Reno from March 26 – 29, 2017. In fact, plan to come early and/or stay late. Reno is a jumping off point for Lake Tahoe, Virginia City and so much more. Watch a short video to see the Peppermill hotel and a bit about the area surrounding Reno.

Register today to save with early-bird pricing and save your spot in Reno. Hotel reservations can also be made at our headquarters hotel, the Peppermill Resort & Casino. There are several styles of rooms to choose from but reserve soon as some room styles will sell out very quickly.

Our educational program and schedule is currently available for your review. The meeting is full of thoughtful program content tackling a wide variety of procurement topics.

Our Wednesday Closing Keynote speaker is Jeff Johnson, an award-winning journalist, communications specialist, and thought leader. Plan to stay through the final day of the conference and take advantage of the slate of educational sessions throughout the day!
Take Advantage of the RFP Library

As part of your membership, you have access to a wealth of information on the NAEP website include the RFP Library. Functioning just like a Google search, you can find over 800 submitted sample RFPs from schools across the country.

You must log into the NAEP website to access this repository. But once you’re in, you can keyword search for RFP documents on a number of topics. Higher education procurement is collaborative. Don’t reinvent the wheel.

Are you realigning your departmental positions? We have many procurement job descriptions in this library as well. See what other schools are doing as you determine your best practice.

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Women’s Leadership Forum

December 6 – 9, 2016
Dana Point, Calif.

If you can participate in only one educational program this year, this is the one!

Be a part of a special program for women seeking to become leaders in higher education administration and student affairs. Co-produced by several higher education associations, this unique program will bring together administrators from across campus functions to help you:

- Hone your leadership skills for working in a rapidly changing environment
- Develop a better understanding of the campus as a workplace and culture
- Share experiences with others about how campuses are adapting and adjusting to the new reality
- Create new personal networks and networking skills to better tap the higher education community

Through presentations, small-group exercises, and discussion, you will gain a practical understanding of what it takes to be a leader on a college or university campus—both the challenges and the rewards. Examine the unique roles, skills, and relationships needed to lead as higher education faces and deals with the most challenging period in 50 years.
Upcoming Events
Posted By NAEP, Thursday, November 10, 2016

Annual Meeting

2017 NAEP Annual Meeting
March 26-29, 2017
Reno, NV
Information and Registration

Institutes Planned in 2017:
- Procurement Academy
- Federal Procurement Institute
- RFP Institute
- Facilities Institute
- Contract Management Institute
- Strategic Procurement Institute II: From Theory to Practice

Please note that these events are not finalized and my change. Dates and locations will be announced soon.

Regional Meetings

2016 Carolinas Regional Meeting
November 13-16, 2016
Asheville, NC
Register Now

2017 Florida Regional meeting
January 25-27, 2017
Sanford, FL
Register Now

Webinars:

NIH Funding – What does the recent election men for future NIH Funding?
November 15, 2016
Learn more and register

Advancement through Education in the Procurement Profession
November 17, 2016
Learn more and register

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Now Is the Time: Renew Your NAEP Membership Online
Posted By NAEP, Thursday, November 10, 2016

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Beginning November 14th, your institution will be asked to renew its NAEP membership for the 2016 calendar year. You will be able to renew securely online. NAEP membership is institutional and not an individual membership. If your institution is a member, any employee in and out of your department may create their own personal profile and take full advantage of NAEP’s services, including full access to the wide array of data and content on this website. Membership dues are based on your student FTE population.

Be sure to renew by January 31, 2016 to provide your procurement team with access to:

- Thousands of procurement professionals across the country, via online forums and face-to-face meetings
- Best practices across a range of topics including talent management, technology and branding
- Our Competency Model to manage your career (and your staff team)
- A search capability to review and download hundreds of RFPs and job descriptions
- Scholarships for continuing professional development
- Professional training and career development

NAEP membership is invaluable and moves you forward.

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**AASHE News**

Posted By NAEP, Thursday, November 10, 2016

Check out some of the recent accomplishments from the AASHE community! Click the headline to read more.

- Ball State University Shaves 20 Years Off Carbon Neutrality Date
- Dickinson College Installs Beehives
- Cleveland State University Becomes EPA "Green Power Partner"
- North Carolina State University Student Creates Campus Pollinator Garden

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**Quote of the Month**

Posted By NAEP, Thursday, November 10, 2016

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“Alone we can do so little, together we can do so much.”

— Helen Keller