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The Solar Ocean Energy Liaison

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US OTEC COMMUNITY EXPERIENCES CONSTERNATION DUE TO MINIMAL PILOT PLANT AWARDS BY DOE

Since February 18th the US OTEC community has been in a quandary. On that date the US Department of Energy (DOE) announced that it had made only two selections for awards for the OTEC Pilot Plant PON, in lieu of the four to seven awards that had been expected. As briefly outlined in OE’s March 3rd bulletin to subscribers, the US OTEC community remains in a state of shock, not only because of the minimal number of awards, but also because both DOE’s selections were for exactly the same site (in Hawaii).

Of the eight bidding teams, the two awards were made to:

1. GENERAL ELECTRIC (GE), Prime Contractor, with GE as systems integrator and Brown and Root, Hawaiian Dredging, and Gibbs and Hill as subcontractors. This proposal is for a shelf-mounted fixed tower with 40 MWe net power to be at a depth of 382 feet, one mile offshore from Kahe Point, Oahu, Hawaii.

2. OCEAN THERMAL CORPORATION, Prime Contractor, with TRW as Systems Integrator and TRW, Hawaiian Dredging, Burns and Roe, R. J. Brown Associates, and Science Applications Incorporated as subcontractors. This proposal is for an OTEC plant with 40 MWe net power to be built on an artificial island at a depth of 28 feet, 600 feet offshore from Kahe Point, Oahu, Hawaii.

The US OTEC community has been “on hold” since early 1981, when the proposals were finalized, with oral presentations taking place in June and final terms completed on July 8th. Thus almost a full year of OTEC inactivity has passed during the Pilot Plant proposal/award deliberations.

Most, if not all, of the major industrial firms active in the US OTEC program for many years were members of the eight teams (see “Review of Pilot Plant PON Proposals” in this issue) that bid on these DOE contracts. While the advent of the Reagan Administration was no blessing for OTEC—or for any of the other renewable-energy technologies—the DOE budget for Fiscal Year 1982 was finally established at $20.8 million (see the December 1981 issue of OE). This figure was about half of the 1981 budget, but most OTEC advocates were satisfied with it, since the Reagan Administration and DOE had originally requested nothing: a zero budget. Moreover, most of the other renewable-energy technologies were subjected to far deeper budget restrictions—all due to Reagan’s budget-cutting efforts.

Of the $20.8 million, $8.3 million was earmarked for the Pilot Plant awards. This was expected to result in at least seven awards for the maximum of $900,000 each, with the balance for DOE administration of the awards.

As the months passed, however, members of the OTEC community revised their expectations to four to seven awards. "But no one expected only two!

The stated purpose of the Pilot Plant PON was to establish a strong, wide industrial base for OTEC and to provide detailed site-specific knowledge including economic criteria so that private/non-federal funding sources could be approached to provide capital formation for commercial OTEC plants.

The Universal Reaction: Shock

Virtually the entire US OTEC community received word that only two awards had been made with a common reaction: shock. Comments from private industry, government agencies, researchers, and congressmen included: “Appalling.” “A travesty.” “A sham.” And from the head of one team to Secretary of Energy Edwards: “...my disappointment has increased to chagrin and borders on becoming incensed.”

Ammonia and Floaters

Comments from engineers expressed distaste and astonishment regarding the selections, since GE’s proposal incorporates Freon as the working fluid, which had been rejected by DOE in favor of ammonia, and since DOE’s favored concept for almost ten years and through hundreds of millions of dollars has been toward floating OTEC plants, while neither of the Hawaiian selections are for floating plants: one is for a shelf-mounted plant and the other is for a shore-mounted plant.

Separately, letters have been written, telephone calls made, and meetings requested to and of DOE by team members, individuals, Senators, and Representatives protesting the fact that only two awards were made, the small amount of money to be spent, the lack of variance in geographical sites, and the lack of diversity in technological approaches. Assistant Secretary Tribble has let it be known that the decision is final and irreversible, and refuses to discuss the matter.

The Puerto Rico Electric Power Authority (PREPA) has filed a formal legal protest with the US Government Accounting Office (GAO). At prestige, OE understands that at least two other teams are considering similar action.

Two Awards Going to Contract

The two teams selected for awards have been undergoing negotiations with DOE, and apparently their awards will be made despite the formal protest by PREPA. Final contracts are expected to be signed by late April.

However, as this issue goes to press, rumors are being heard in Washington that final approval for DOE to sign firm contracts for the two Hawaiian awards does have some chance, although minimal, of being delayed due to the formal protest filed with the GAO.

Congressmen Miffed

The architects of the major federal legislation in recent years on OTEC included Senators Inoue and Matsunaga of Hawaii (see Matsunaga’s comments on the awards in this issue), Representatives Studds and Fuqua, and Senator Packwood. Several are understandably miffed.

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ANNUAL OCEAN ENERGY MEETING
SCHEDULED FOR SEPTEMBER IN WASHINGTON DC

As with previous conferences, Ocean Energy & held in Washington last year, was virtually entirely funded by the US Department of Energy. However with the future of DOE in doubt (see story in this issue) and a vastly-reduced budget—with no funds for conferences—the 1982 annual meeting of the ocean-energy community will take a new form.

In his January 22nd letter to members of the Marine Technology Society's Ocean Energy Committee, Committee Chairman Bob Scott announced that agreement had been reached between MTS and DOE to merge the 1982 ocean-energy—community meeting with MTS's annual meeting, titled Oceans 82, to be held September 20th through 22nd at the Shoreham Hotel in Washington DC.

On the last day of that meeting (Wednesday, September 22nd) a full day of papers on ocean energy will be presented, followed by one—day or one-and—a-half day Ocean Energy Review at the same hotel.

The format of the Review is still being determined, but is expected to include an in-depth presentation by each of the winners of the OTEC Pilot Plant design awards.

The Wednesday session will present a mixture of specifically-invited papers and papers proposed in response to the general Call for Papers. A tentative list of subjects to be covered includes:

- Licensing/Regulations
- 10-Foot CWP Program
- DOE Program Overview
- International Developments
- Methanol Production With OTEC
- Riser Cable Technology Development
- DOE/NOAA Ocean Engineering Technology
- Commercial Plant Concept Development
- Alternative Technologies (Geothermal, Waves)

The combined meeting is expected to maximize overall attendance and expose the ocean—energy community to the broad spectrum of MTS conference attendees.

Further information may be obtained from Bob Scott, Chairman, Ocean Energy Committee, Marine Technology Society, Suite 412, Washington DC 20036, (202) 659-3251. Mr. Scott may also be reached at Gibbs and Cox, (703) 979-1240.

The 284-page report Commercial Ocean Thermal Energy Conversion (OTEC) Licensing, by NOAA, is available for $22.50 paper copy and $4 microfiche as PB82-117532 from the National Technical Information Service, 5285 Port Royal Road, Springfield, Virginia 22161.

RECENT DATA ON JAPANESE OTEC DEMONSTRATION PLANT

Far Less Efficient Than First Reported

Following the publication in our November 1981 issue of technical data pertaining to the Japanese OTEC demonstration plant on Nauru, OE received a letter from a Japanese researcher questioning its accuracy. The researcher requested that we not make claims that were unjustified, saying that he "had not heard in Japan" the information we had published.

Mystified by his comments, we wrote requesting clarification. We also explained that the information we had published was received from an American who had visited the site in Nauru and had obtained his data from Japanese engineers in charge of the project.

Our November issue reported that the gross power of the plant was 180 kilowatts, with a net power output of 103 kilowatts—a ratio of 57%, and compared this to Mini—OTEC (53 kilowatts gross, 18.2 net: 34% ratio). This apparent improvement was due, we conjectured, to the fact that there is a higher delta—T in Nauru (20°C to 25°C) than in Hawaii (19°C to 22°C), and the fact that Hawaii's Mini—OTEC was built using off— the—shelf hardware, while the Japanese Nauru plant was built to design.

OE now understands that the Nauru OTEC Project is obtaining a maximum gross power output of only 120 kilowatts, with a net power of "about 30 kilowatts for short duration". This is a ratio of only 25%—considerably less efficient than the Mini—OTEC.

These more—recent figures confirm exactly the data supplied to OE by the Washington DC offices of the Tokyo Electric Power Services Company, which built the plant with Toshiba.

OE has also received two complete illustrated reports on the Nauru OTEC project which are currently being translated. Excerpts from these reports will be presented in a future issue.

TWO HAWAIIAN SELECTEES FOR PILOT PLANT PON PRESENT OVERVIEWS AT MTS MEETING

The two consortia selected for awards for the DOE Pilot Plant, General Electric (GE) and the Ocean Thermal Corporation (OTC), presented overviews of their respective proposals at a recent meeting and luncheon of the Washington DC section of the Marine Technology Society.

The meeting was held April 6th at the Fort Myer Officers Club in Arlington, Virginia. GE was represented by Daniel Lessard, OTEC Project Manager, and OTC by Don Farthing, Deputy Managing Director.
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Senator Robert Packwood (R-Oregon) supported the Solaramco/Lockheed proposal for a floating OTEC plant off Hawaii, since it was expected that the proposed plant would be constructed in an Oregon shipyard; and Representative Don Fuqua (D-Florida) supported the proposal by the Florida Ocean Thermal Energy Consortium (FOTEC) for a floating OTEC platform to be moored 30 miles off Key West in the Florida Straits.

Debriefings of Losing Bidders

All of the consortia that bid on the Pilot Plant PON had the option to request a debriefing meeting with DOE, and most of them did so, with meetings held in Washington in March or early April. The debriefing sessions ran from three to four hours each, and were attended by representatives of the various components of the individual bidding consortia together with most, if not all, of the members of the Source Evaluation Board (SEB). The SEB was chaired by Bill Richards, the head of DOE's Ocean Systems Branch. Other members included Carmen Castellano and Lloyd Lewis of Ocean Systems, Jack Peel of the DOE Procurement Office, and Terrence McGuiness of NOAA. Additional personnel from DOE attended the debriefings, including representatives from DOE's Office of Legal Counsel.

The debriefings began with a detailed explanation to the losing bidders of the methods by which the SEB investigated and examined each of the proposals, their strengths and weaknesses, and how they evolved the ranking of the proposals. The SEB then made their recommendations to the Source Selection Officer, who was Joseph H. Tribble, DOE's Assistant Secretary for Conservation and Renewable Energy. Tribble is understood to have conferred with Secretary of Energy James Edwards regarding final selections.

Thereafter, the bidders had the opportunity to ask the SEB specific questions and review various points, many of which resulted in unresolved disagreements.

The SEB made it clear that the purpose of the debriefings was just that—an explanatory, educational exercise—and that in no way would or could they alter the decisions already made.

Tribble's 13-Page Document

On February 18th, the same day the two selectees were announced for the Pilot Plant awards, DOE released a 13-page document reviewing the selection process and clarifying, to some degree, how the winners were selected. A synopsis of that document appears elsewhere in this issue, together with information as to how readers may obtain the entire document.

In addition, a separate story in this issue deals with the position of the Ocean Energy Council on the Pilot Plant awards and their effect on the US OTEC program.

WITH 100% OF THE PILOT PLANT AWARDS GOING TO HAWAII, ITS SENATOR ISSUES PRESS RELEASE

Senator Spark Matsunaga (D-Hawaii) issued the following press release the same day the award selectees were announced, February 18th. It is reproduced here in its entirety. Italics are those of OE's editor.

Honolulu, Hawaii: Senator Spark Matsunaga (D-Hawaii) today announced that the United States Department of Energy has selected Hawaii as the site for two projects in the development of ocean thermal energy conversion (OTEC), a process of using the difference in the temperature of the sea water at the surface and at the bottom to generate electricity.

"I am happy to report that common sense and sound logic prevailed in the selection, for Hawaii is by far the best location in the United States to carry on the development of ocean thermal energy conversion."

While the Department of Energy was expected to announce up to seven awards, only two were made, both targeting Kahe Point off Oahu as the site. The contract awards were made to two consortia, both of which include Dillingham Corporation as an active partner and the Hawaiian Electric Company as a participant. They are: (1) General Electric, Brown and Root Development Incorporated, and Dillingham to build an offshore OTEC tower at Kahe. (2) Ocean Thermal Corporation, TRW, and Dillingham: to build an onshore OTEC plant at Kahe.

Each consortium will negotiate a contract of up to $900,000 to produce a conceptual design of an OTEC pilot plant. It is expected that these Phase I designs will be for a 40-megawatt OTEC power plant, which, when constructed, would be able to generate baseload electricity for 40,000 people on Oahu. Once the pilot plant proves the operation successful, private industry is expected to build 400-megawatt modules, one of which could provide half the average electrical load of the entire state.

One design will be selected to enter the Phase II stage. A sum of $4 million has been deferred into Fiscal Year 1983 to continue this work.

"Beyond Phase II," remarked Matsunaga, "Congress created a pool of funds amounting to $1.65 billion from which the private sector can secure guaranteed loans."

The information presented below was obtained from the 13-page document released by the US Department of Energy titled Selection of a Contractor for the Design, Construction, Deployment, Operation, and Evaluation of a Closed-Cycle OTEC Pilot Plant With a Minimum Net Capacity of 40 Megawatts Electric (MWe). The selections were specifically for Phase I only. The net capacity was amended by Modification Number 2, dated December 11th, 1980, to include any size.

The document was released over the signature of Joseph J. Tribble, Assistant Secretary for Conservation and Renewable Energy, US Department of Energy, and was dated February 18th, 1982. OE herewith presents a summary of this document, many aspects of which have been challenged by bidders. In fact, an Amendment to OTEC Selection Statement dated March 12th and signed by Tribble corrects one paragraph of the proposal submitted by the Puerto Rico Electric Power Authority (PREPA). Therefore, to obtain an accurate overview, we suggest that our readers obtain the full amended document from DOE—or OE will forward copies upon receipt of $4 to cover copying, handling, mailing, and postage costs, domestic or foreign.

THE PROPOSALS

On September 22nd, 1980, the Pilot Plant Program Opportunity Notice (PON) was issued to about 325 firms and industry representatives. A pre-proposal conference was held October 8th, 1980. (See the October 1980 issue of OE for reaction from industry to that conference.) On February
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27th, 1981, nine proposals were received. Oral presentations, in part in response to questions from DOE's Source Evaluation Board (SEB), took place in June, with Last and Final Offers presented to the SSBN on July 8th.

One of the nine proposers, the California Energy Company, withdrew its bid.

The eight remaining proposals are listed below "in order of technical merit" as ranked in the OTEC Selection Statement:

**GENERAL ELECTRIC (GE)**

**FLORIDA OCEAN THERMAL ENERGY CONSORTIUM (FOTEC)**
Steel Ship on Single-Point Mooring 30 Miles From Key West, Florida. **Systems Integrator:** FOTEC. **Subcontractors:** TRW, Stone and Webster, and Santa Fe International. **Technical Data:** CWP: 30' diameter, 2600' long, of fiberglass-reinforced plastic with balsa wood or foam core. Working fluid: freon. Heat exchangers: steel- and tube-titanium with enhanced surfaces. 30-mile power cable is buoy-supported near platform and buried near shore.

**OCEAN SOLAR ENERGY ASSOCIATION (OSEA)**
Steel Semi-submersible off the Coast of Puerto Rico. **Systems Integrator:** Sea Solar Power Incorporated. **Subcontractors:** General Dynamics and Center for Energy and Environment Research of the University of Puerto Rico. **Technical Data:** Power to shore by cable. CWP: 30' diameter, of steel or aluminum. Heat exchangers: aluminum or copper-nickel with freon as the working fluid.

**THE SELECTION DECISION**

Following the outline of each proposal, the Selection Statement indicated various strengths and weaknesses of each design. It is beyond the scope of this publication to either detail these comments or attempt to condense them without altering their content significantly. Readers interested further should avail themselves of the two options to obtain the entire document outlined at the beginning of this article.

Similarly, a two-page section at the end of the Selection Statement clarifies still further, with an overview, the reasons for both the Source Evaluation Board’s and Tribble’s decision.

Several significant comments, however, are excerpted below:

"Candidate concepts most likely to succeed should be selected. It is desirable to have a minimum number of design conditions which push the state-of-the-art and involve unnecessary risks."

Regarding the fact that the two selectees made proposals for the same Hawaiian site, Tribble says: "Thus, it can be more easily seen which technology is better under essentially similar conditions."

With reference to the fact that, after GE, two proposals were rated technically higher than OTEC, Tribble explains that the VIWAPA and CNMI proposals were rejected because "The Board raised questions of scalability in both" and that the CNMI proposal presented risks due to its location in a typhoon-prone area.

The Selection Statement devotes four of its thirteen pages to outlining its evaluation procedures, with indicated weights for various criteria such as "Understanding the Problem", "Technical Approach", "Commercialization Economics", and the like, with "Technical Approach" being the most important single factor.

Also, at the end of each bid, comments were made regarding its ranking among the others in the areas of business management, cost sharing on Phase I, cost sharing on all six phases, and cost per kilowatt. The comments were indicated by such terms as "adequate", "midrange", "highest", "second lowest", and the like.

OEC’s intention, at the end of the bids, was to present all of the comments for an accurate basis of comparison, but found, for example, that two bidders were both designated as "second highest" (for cost sharing on all six phases: both CNMI and FOTEC, as well as other inconsistencies that prevented our doing so.

However, it was noted that OEC ranked highest and second highest in its offered percentage of cost sharing in both areas. The question of whether or not additional awards will be made is difficult to answer, since a multitude of factors are involved. These include the 1983 budget for OTEC, the future of DOE itself, the actions of the PREPA protest and its effect if any on the two selectees, and other possible actions as reported and/or suggested in other articles appearing in this issue.

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**OEC ACTION ON OTEC PILOT PLANT AWARDS PENDING**

Since the Ocean Energy Council (OEC) represents much of the OTEC community, in that its membership is composed of representatives of private industry, utilities, and research organizations as well as individual government personnel, its reaction and response to the minimal OTEC Pilot Plant awards by the Department of Energy and related matters is viewed as significant.

The delay in OEC’s response has been due primarily to division within its membership: Those organizations that are participants in the winning consortia feel one way, and the losers another.

Also, the OEC Board of Directors will hold elections in early June. Therefore the Board prefers to wait till then so that its response will reflect the views of a majority of its components.

Several of the consortia that were not selected for Pilot Plant PON awards have requested OEC support in protesting the minimal awards made by DOE.
WHY ONLY TWO AWARDS?

As noted in our March 3rd bulletin to subscribers, OE's editor wrote to Joseph H. Tribble, DOE's Assistant Secretary for Conservation and Renewable Energy, who made the decision on the OTEC Pilot Plant awards, asking him why there were only two awards. A copy of the bulletin was enclosed and the receipt of the letter was confirmed, but there has been no reply as of mid-April.

Some light has been shed on the matter by an aide to Tribble, however. He acknowledged that the combination of Reagan budget cutting and DOE's long-known negative attitude toward OTEC and other renewable-energy technologies resulted in efforts to spend as little as possible—that is, as little as they could get away with—for OTEC.

Repeating the direction of Congress in its first budget authorization for OTEC for DOE to make "multiple awards", the spokesman said that the wording enabled DOE to interpret this direction at their discretion, and that therefore they made only two awards—just enough to meet the requirements of the word "multiple".

He added that the general reduction in OTEC funding was due to (1) the change of administrations, (2) overall budget limitations, and (3) "frugality". Moreover, he understood that Tribble's decision was based largely on "how best to spend the taxpayers' money", and for that reason two competing proposals for the same site were chosen.

Tribble discussed his decision on the Pilot Plant PON awards with Secretary of Energy James Edwards, but despite the fact that "some very powerful Senators and Representatives have challenged the decision", has refused to discuss it further.

HEAD OF US ENERGY DEPARTMENT HOPES TO CLOSE IT BY JULY 4TH

Speaking before the Atomic Industrial Forum in New Orleans April 6th, Secretary of Energy James Edwards said he hopes to close his department permanently on July 4th as an Independence Day "gift to the nation".

Created during the Carter Administration, DOE has over 20,000 regular employees plus 12,000 contract employees under 17,000 grants and contracts.

Budgeted last year at $17.8 billion, DOE's funding has been reduced to about $10 billion by the Reagan Administration. Under the plan outlined by Edwards, a bill to complete the dismantling of DOE will be sent to Congress in several weeks. Parts of the department would be shifted to other government agencies. (See the September 1981 issue of OE.)

However firmly it appears that Edwards wants to eliminate his own job, Congress may feel otherwise. Sources in Washington tell OE that Edwards' bill is expected to stagnate in Congress pending the outcome of the November elections. Since one of Reagan's campaign promises was to close down DOE, he will probably do so shortly if the fall elections provide him with support. If not, DOE is likely to remain in operation.

ADDITIONAL REACTION OF SOLAR ADVOCATES TO REAGAN'S ANTI-SOLAR POLICIES: SUIT FILED IN FEDERAL COURT

On April 6th President Reagan and five members of his Cabinet were sued by a coalition which charges that the Administration is illegally refusing to spend money on solar energy and energy conservation.

The State of New York, the Cities of Philadelphia and Saint Paul, five Congressmen, and several consumer and conservation groups filed the suit in federal court in New York.

At a Washington press conference, they accused Reagan of illegally refusing to spend $21.8 million appropriated by Congress this year to establish the Solar Energy and Energy Conservation Bank.

"This is the first time since the Nixon Administration that a President has refused to faithfully execute legal spending requirements," said Steven Ferrey, chairman of the Solar Lobby, one of the groups bringing the suit.

The Bank, created by Congress in June 1980, has never granted aid.

This illegal refusal to spend authorized funds echoes the situation in OTEC: Many of the mandates provided by legislation for OTEC (Public Laws 96-310 and 96-320, outlined in the June and July issues of OE) have been ignored by both the Reagan Administration and the US Department of Energy.

Named as defendants in the suit were Samuel Pierce, Secretary of the Department of Housing and Urban Development (HUD), Energy Secretary James Edwards, Treasury Secretary Donald Regan, Agriculture Secretary John Block, and Commerce Secretary Malcolm Baldrige, all designated as members of a board that was to direct the Solar Bank's activities. Also named were President Reagan and David Stockman, Director of the Office of Management and Budget (OMB).

Bringing the suit were Congressmen Stewart McKinney (R-Connecticut), Stephen Neal (D-North Carolina), Bill Green (R-New York), Richard Ottinger (R-New York), and Michael Lowry (D-Washington). The groups which filed the suit were the Solar Lobby, the Natural Resources Defense Council, the League of Women Voters, the National Audubon Society, the New York Public Interest Research Group-Citizens Alliance, and the National Association of Solar Contractors.

OE understands that more than 30 additional organizations sought to participate in bringing the suit, but were unable to do so because of the numbers involved.

CALL FOR PAPERS!

The Marine Technology Society (MTS) and the Institute of Electrical and Electronics Engineers (IEEE) invite papers by all interested authors for the Oceans 82 conference and exposition to be held at the Shoreham Hotel in Washington DC September 20th through 25th.

The theme of the conference is "Government, Industry, and Academia—Partners in Ocean Progress".

Papers are requested which:
1) examine the needs of the US and other nations for solutions which marine technology may provide;
2) highlight technological problems and potentials whose successful realization could make significant contributions to the peoples of the world;
3) illuminate deficiencies in research and development;
4) propose methods of fostering ocean development.

The deadline for submission of papers is March 18th.

Abstracts pertaining to ocean energy should be mailed to Robert Scott, Chairman, Ocean Energy Committee, Oceans 82 Technical Program, 1730 M Street Northwest, Washington DC 20036.

INDIAN OTEC WORK DETAILED

Further details have been received by OE regarding current OTEC developments in India. (See OTEC Status Report: International in our January issue.)

The Central Government of India last year rejected a proposal by General Electric to prepare a feasibility study for a 25-megawatt OTEC plant off the coast of the Indian state of Tamil Nadu. In its place, an all-Indian consortium has been formed to study a one-megawatt prototype.

According to an article by Philip M. Kohn in the February 8th issue of Chemical Engineering, P. Murari, chairman of the Tamil Nadu State Electricity Board, said that the conceptual design is currently being finalized by the Indian Institute of Technology at Madras.

Other members of the consortium include the Central Government's Department of Science and Technology, Bharat Heavy Electricals Ltd, and the National Oceanographic Research Institute. Following design and engineering work, the one-megawatt project is scheduled to be in operation by 1984.

In a separate development, the article reports, the Dutch firm of Delta Marine Consultants of Rotterdam is seeking financial aid from its own government to cost-share in the study and design of a 10-megawatt plant for India.
NOAA'S REPORT TO CONGRESS ON OTEC RELEASED

Ocean Thermal Energy Conversion—Report to Congress: Fiscal Year 1981 was released in late February by the Office of Ocean Minerals and Energy of the National Oceanic and Atmospheric Administration (NOAA).

With cover letters dated February 18th to the Honorable George H. Bush, President of the Senate, and the Honorable Thomas P. O'Neill Jr., Speaker of the House of Representatives, NOAA's administrator, John V. Byrne, introduces the 35-page report.

In the opinion of this editor, this report embodies one of the most thorough, wide-ranging, and yet succinct reviews of where OTEC is today. Congratulations are due to its principal author, Richard Norling, OTEC Program Manager of NOAA's Office of Ocean Minerals and Energy.

The report includes OTEC's history and resources, technology, legal and environmental aspects, and international impact.

Anyone and everyone involved in OTEC should read this report. Copies may be obtained from the US Government Printing Office in Washington DC by requesting Document Number 1982 360-997/2038.

REAGAN'S PLANS TO DISMANTLE DOE CONTINUE TO MEET WITH RESISTANCE

The Reagan Administration's intention to abolish the Department of Energy continues to meet with opposition in Congress. While most of DOE would move over to the Commerce Department under Reagan's plan—with OTEC possibly becoming a separate agency—Congressional reluctance to approve DOE's demise continues to mount.

OTEK proponents see distinct advantages in OTEC's moving over to Commerce/NOAA, but maintain continuity within DOE in case the proposed dismantling of that department fails to materialize.

Resolution of the future of DOE is not expected for many months.

NOTICE

Several subscribers have notified us that they did not receive the August 1981 issue of Ocean Energy, which included results of a subscriber poll, further information on the planning of Tokyo Electric Power Services Company (TEPSCO), an update on Lockheed's Dam-Atoll wave-energy work, and other stories.

If you did not receive your August 1981 issue, please contact us and a duplicate copy will be sent without charge.

RECENT PATENTS

Patents issued recently relevant to ocean energy are listed below:


Copies of these patents can be obtained from the US Patent Office

US GOVERNMENT PROCUREMENT INVITATIONS AND CONTRACT AWARDS

Listed below are procurement invitations and contract awards related to OTEC in particular and ocean resources in general culled from the Commerce Business Daily. This is not to be construed, however, as a complete list.


Feb 9: Continued Development and Application of the Turbulence Theory: Negotiations are being conducted with Robert H. Kraichman Incorporated, Box K, Learned Road, Dublin, New Hampshire 03444. Office of Naval Research, 800 North Quincy Street, Arlington, Virginia 22217.

Feb 17: Technical Support Services in Marine Technology: The proposed contract is for a period of one year with Government option to extend for an additional two-year period. Solicitation SA-82-RSA-0025 (SG). The planned Solicitation Closing Date is March 1st, 1982. This is a Requirements Contract. US Department of Commerce, Office of Procurement Management, Program Support Procurement Branch A, Room 6518, 14th Street and Constitution Avenue Northwest, Washington DC 20230, Attention Mrs. Susan Gane.

Feb 18: Perform United States Gulf Coast Geothermal Program Special Projects and Co-ordination Assistance: Modification A010 to Contract DE-AC-08-79-ET-27112, estimated at $648,777, awarded to the University of Texas, Austin, Texas 78712. US Department of the Interior, Geological Survey, Procurement and Contracts Section, Building 13, Room 133, 345 Middlefield Road, Menlo Park, California 94025.


Feb 24: Correction: Design and Engineering Services (Combination) on an As-Needed Basis for a Term of One Year Under a Firm Fixed Price, Indefinite Delivery Contract for Bridges in Puerto Rico and the Virgin Islands: Correction to PSA-8021, February 17th, 1982. Consideration will be limited to firms located within the territories of Puerto Rico and the Virgin Islands. At least one member of any proposed joint venture must have an existing design production office

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ENERGY TAX CREDITS APPEAR SAFE

Despite attempts by the Reagan Administration to reduce or eliminate business and energy tax credits that enhance the commercial aspects of solar technologies, including OTEC, Congress continues to resist. (See the October 1981 issue of OE for a complete story on tax credits.)

Resolutions to defeat any move by the Administration to eliminate the credits have been circulated in Congress, with an ample majority of both houses in support. Even some officials of the Treasury Department have privately intimated that any such efforts will not succeed.

OYSTER CABLE REPORT AVAILABLE

A paper titled Reports on OTEC System Components, by J. P. Kurt, J. A. Schultz, and L.H.S. Roblee, all engineers from the Simplex Wire and Cable Company of Portsmouth, New Hampshire, describes prototype testing of riser cables designed for use in OTEC systems.

Two cables were designed for this purpose, and the paper covers major materials and properties of the designs as well as full-scale testing of the prototypes. The paper, Number 81-2591, was presented in December 1981 at the 2nd Terrestrial Energy Systems Conference, and is available from the American Institute of Aeronautics, 1290 Avenue of the Americas, New York, New York 10010.

Solar OCEAN ENERGY Liaison Chicago 60605 February/March 1982


Mar 10: Research Grants Will Be Competitively Awarded by the Office of Marine Pollution Assessment of NOAA in Response to Applications Addressing the Following: (1) Research related to effects of pollution and human-induced changes of marine ecosystems (including ecosystems of the Great Lakes) under Sections 201 and 202 of Public Law 92–532 (Marine Protection Research and Sanctuaries Act of 1972). (2) Research and development and monitoring projects needed to meet priorities set forth by Section 6 of Public Law 95–273 (National Ocean Pollution Research Development Monitoring Planning Act of 1978). Individuals, companies, corporations, educational institutions, non-profit institutions, and others, including local, state, and federal agencies, may apply. Fee or profit will not be paid to recipients. Further information and assistance can be obtained from the office listed below. Telephone requests will be honored: (206) 525–0651. There are no specific deadlines for submission of applications, since applications will be reviewed several times a year. National Oceanic and Atmospheric Administration Operational Programs Office (MPF28), 7600 Sand Point Way Northeast, B1N C15700, Seattle, Washington 98115.


Mar 16: Continued Research on Ocean-Related Non-Linear Dynamics: Contract N00014–79–C–0537, January 18th, 1982 (no RFP), for $299,029, awarded to the La Jolla Institute, PO Box 1434, La Jolla, California 92038. Office of Naval Research, 800 North Quincy Street, Arlington, Virginia 22217.


