The developer of a $250 million system using cold seawater to provide energy-saving air conditioning to downtown buildings is almost ready to start drilling tunnels and laying pipe for the project.

Honolulu Seawater Air Conditioning LLC announced today that it has selected the final member of its construction team, Seattle-based Frank Coluccio Construction Co., needed to move ahead with construction.

Groundbreaking is expected by the end of the year, and the system is projected to begin operating by 2014.

Coluccio Construction will do tunneling work, drilling shafts under the sea floor to house pipes that will transfer cold seawater from a depth of 1,700 feet off the Kakaako shoreline to a heat exchanger connected with a closed loop of fresh water that's chilled and delivered to buildings for air conditioning.

The seawater pipes will range from 60 to 72 inches in diameter.

Coluccio Construction has had a presence in Hawaii for nearly 40 years and has been involved with projects including an H-3 freeway exploratory tunnel and sewer tunnels in Kailua, Waikiki and one to run under Honolulu Harbor.

Honolulu Seawater announced two other members of its construction team in August. They are Hawaiian Dredging, the state's largest general contractor, and Oregon-based James W. Fowler Co. to lay pipe beneath downtown streets. Before that, Healy Tibbits Builders Inc. was selected to install the offshore seawater pipes.

An estimated $200 million-plus in construction spending and more than 900 jobs are expected to be generated locally by the project, Honolulu Seawater said.

The developer said using 44-degree seawater instead of electricity to chill buildings will cut electricity costs by up to 75 percent and save an estimated 77 million kilowatt-hours of power a year. That's enough to power more than 10,000 homes a year and eliminate the need to burn 178,000 barrels of oil a year, the company said.

The system also reduces potable water consumption for air conditioning by more than 260 million gallons and avoids annual emission of 84,000 tons of carbon dioxide — the equivalent of removing 15,000 cars from the road, Honolulu Seawater said.

Hawaiian Electric Co. officials have said the system will save more electricity than the combined output of
all the solar photovoltaic systems in the state.

But unlike photovoltaic systems that have rapidly multiplied in Hawaii, the seawater air-conditioning project has taken a long time to advance.

Honolulu Seawater is an affiliate of Minnesota-based Ever-Green Energy LLC, which announced plans for the district cooling system in Honolulu in 2004 with expectations of having a system running by mid-2007.

The company postponed the project's start date several times, but through the years has lined up the needed financing, permits, customers, land leases and partners.

"We appreciate the interest of the entire construction community and thank everyone for their participation and continued interest in making Honolulu one of the greenest downtowns worldwide," Eric Masutomi, president and CEO of Honolulu Seawater, said in a written statement. "We look forward to the commencement of our project."

2 firms hired for seawater project's pipe work

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