



TOWN OF SOUTH KINGSTOWN

MEMORANDUM

TO: Stephen A. Alfred, Town Manager

FROM: Jon R. Schock, Public Services Director

SUBJECT: Superfund Landfill Solar Energy Consulting Services

DATE: September 8, 2015

Background

The Town owns two- (2) Superfund landfill sites. The Rose Hill Landfill (RHL) located on Rose Hill Road was remediated and capped in 2007 in accordance with requirements of the US Environmental Protection Agency (EPA) and the RI Department of Environmental Management (DEM). The cost associated with closure of the RHL was shared by the Town of Narragansett and the Town of South Kingstown.

The West Kingstown Town Dump (WKTD) is located on Plains Road and is located adjacent to two – (2) URI Disposal Areas (URI DA) and a former drum storage area (FDSA). The WKTD, URI DA and FDSA were closed under an expedited “presumptive remedy” program in 2007 in accordance with USEPA and RIDEM requirements. Since URI used the WKTD for waste disposal, the cost to close the WKTD was share by the Towns of South Kingstown, Narragansett and the URI.

The Towns (and URI for the WKTD) are now responsible for long-term monitoring, cap maintenance and debt payment for each landfill. South Kingstown and Narragansett are also responsible for annual payments to RIDEM for Rose Hill closure related expenses.

Beneficial Reuse

Both EPA and DEM have long advocated for beneficial reuse of closed Superfund landfills. However, owners of municipal landfills must balance the risk to humans versus a beneficial reuse of a landfill with significant exposure to humans (ex.: golf driving range). As such, solar projects have typically been deemed favorable by regulatory agencies since access by humans is relatively limited to construction.

Solar arrays on a Superfund landfill need to be well engineered since the multi-layer landfill cap cannot be compromised by solar array footings. As such, the solar systems typically employ a precast concrete ballasted system to support the solar arrays from overturning or uplifting during significant storm/ wind events.

For a number of years, the three (3) regional partners have been exploring potential re-uses for both sites that could either generate revenue or offer some community service.

There are a number of factors that now lead us to promote the potential concept of solar power generation re-use as being a viable option for both sites. The Renewable Energy Growth Program (part of the Clean Energy Jobs Program Act recently passed by the General Assembly – H 7727; 2014) allows for the sale of generated power from renewable sources at a fixed price. In addition, the Federal Investment Tax Credit program (Solar Investment Tax Credit (ITC)) remains in place as a financial incentive for solar infrastructure investments. However, the ITC only applies to solar generation facilities that are constructed and operational before December 31, 2016.

Solar Options

There are currently three – (3) solar (photovoltaic) options for the landfills:

Behind the Meter

Under the “Behind the Meter” scenario, the property owner would use the power from the solar farm directly and before its meter connection to National Grid. Under this scenario, the University of RI would be the only likely user of power from its two-(2) URI DA, given the Kingston campus adjacent proximity. There is also the possibility that the University would purchase the Town’s WKTD solar farm power in lieu of one of the two below power options. Behind the meter would not be feasible for the Rose Hill Landfill due to the small power demand associated with the adjacent transfer station operation.

Net Metering

Under the “Net Metering” scenario, power generated at the landfill solar farm can be used elsewhere at a Town facility to offset power costs. For example, power generated at the RHL could be used to offset power consumption at the regional wastewater treatment facility. Further, the Net Metering program allows governmental entities to use power at other governmental facilities without paying a “wheeling charge”, which is essentially the cost to convey power from one point to another.

Distributed Generation

Under the “Distributed Generation” scenario, the Town would simply lease the landfill site to a private developer that would sell the power generated by the solar array farm.

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Competitive Energy Services- CES

The University of Rhode Island has a contract in place with a private energy consultant called Competitive Energy Services (CES), who provides energy procurement and management services for the University. Given the regional relationship between the University and the two – (2) Towns for the WKTD and proximity of same to the URI DA and URI Kingston campus, there is clearly a benefit to establish a regional solar energy consortium with the University and Narragansett.

To take advantage of the current energy market and private tax credits, which developers need for a financially viable project, I recommend that the Town team with the Town of Narragansett and retain CES to prepare bid specifications and associated energy consulting services for a regional solar project. Please note that URI's share of the regional solar project bid preparation and consulting services is already covered by the University's annual energy services contract with CES. Under their contract with the Towns, CES will develop a Solar Energy Request for Bids (bid specifications), answer questions during bidding, evaluate proposals, recommend an award, negotiate a contract, and assist us in the initial administration.

We anticipate this cost to be approximately \$10,000 (\$625 per month, starting now and potentially ending in December 2016 with the anticipated implementation of an actual project). The total anticipated cost of \$10,000 will be shared equally with the Town of Narragansett. However, as with all consulting projects, a contingency (\$2,000) is requested in the event additional services beyond the original scope of work are required.

Should you be in agreement with the above narrative, I would respectfully request a Town Council resolution as follows:

A resolution authorizing an award of contract to Competitive Energy Services, LLC, 148 Middle Street, Portland, ME 04101, for solar energy consulting services in an amount not to exceed \$12,000, including a \$2,000 contingency, and as further described in a memorandum dated September 8, 2015, from the Public Services Director to the Town Manager and entitled "Superfund Landfill Solar Energy Consulting Services".

JRS/lc

Cc: Joshua Rosen, P.E., Town Engineer
Patricia Sunderland, Finance Director