



January 5, 2016

To: Mike Jordan and Jonas Biery, Bureau of Environmental Services
Jim Blackwood, Office of Commissioner Nick Fish
Members of the Portland Utility Board (PUB) and PUB analyst Melissa Merrell
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Re: CUB Input on Bureau of Environmental Services (BES) FY 2016-17 Budget Development

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INTRODUCTION

This memo summarizes CUB's initial recommendations regarding development of the FY 2016-17 BES budget. We will have additional input after review of the requested BES budget due in February. But we wanted to provide these thoughts now to inform the budget development process by BES and Commissioner-in-Charge Nick Fish. We will also be sharing this memo, however, with staff at the City Budget Office (CBO) and the Public Utility Board (PUB) and it includes background information they may find particularly helpful.

COST RECOVERY

BES Fees Charged to Developers to Ensure Environmental Compliance

CUB recommends that the City Council close a cost recovery gap in the fees that BES charges for their review of land use and building permits to ensure compliance with environmental standards. Only 47 percent of BES costs for review of land use and building permits were recovered in the last fiscal year, 2014-15, for which complete information is available. CUB recommends a 90 percent cost recovery rate and closing the cost recovery gap to this level would have increased revenue to BES by \$1,286,514 that fiscal year. This lost revenue is an inappropriate subsidy to developers and are dollars that should have been kept in the pockets of ratepayers. Closing this cost recovery gap will result in ongoing savings for

ratepayers, but the amount of increased revenues to BES will vary depending on the level of applications for land use and building plan reviews.

More BES customers are good for ratepayers overall and this is why CUB is not suggesting a 100 percent cost recovery approach regarding these land use and building plan review fees. Our thinking is akin to stores not charging customers for shipping costs since offering free shipping encourages repeat business. The analogy is not exact but still conveys the reasoning behind CUB not recommending full cost recovery. Ninety percent cost recovery seems appropriate, however, since less than that becomes an inappropriate subsidy to developers that is counter to the interests of ratepayers. CUB is open to phasing in the fee increases to achieve ninety percent cost recovery over two years but this is not our preference.

Given that the number of land use and building permit applications fluctuates, CUB supports BES setting aside reserves when application levels are such that even at a 90 percent cost recovery rate more dollars are received than are needed at that time to cover BES staff costs. These reserves could be used when application levels decline or when application levels increase to the extent that additional BES review capacity is needed. Ongoing review of reserve levels would be needed.

Industrial Permit Fees

CUB supports the administrative implementation of an updated process for determining industrial permit fees developed by BES. This includes a cost recovery improvement so that permittees would pay a state government fee that BES has been paying on their behalf.

STAFFING

Staffing

CUB will review staffing level proposals in the decision packages that will be part of the requested BES budget. However, we have two initial observations on this topic.

One, CUB's understanding is that Mike Jordan will be taking a different approach in updating BES's 2011-2016 strategic plan so that the new strategic plan will be a more vibrant document used on an ongoing basis for evaluation that will inform program and other decisions that, in turn, inform staffing needs. CUB supports this approach. Before the completion of the new strategic plan, then, caution is urged about adding new programs or adding new staff to programs that may be reduced or modified due to the strategic planning process. Staffing needs between now and development of the new strategic plan should also focus on what will be needed for effective strategic planning, such as addressing data management needs.

Two, CUB is concerned about BES adding staff capacity for functions that duplicate human resources services that the bureau should be able to expect from the Bureau of Human Resources within the Office of Management and Finance. BES and other bureaus pay for a range of centralized services under the general overhead model. CUB supports this approach while also recognizing that ensuring adequate resources to provide these centralized services can be a challenge. It is a slippery slope, though, for BES to add staff capacity for functions that they have already paid for in the form of their general overhead model contribution. CUB's review of decision package details will particularly focus on this concern. More generally, we suggest a broader strategic conversation about possible citywide decentralization trends and the potential need to adjust the general overhead model accordingly.

PLANNING AND UPDATE NEEDS

Importance of Stormwater System Planning

A significant point in the requested FY 2015-16 BES budget that CUB identified last spring was the statement that “the extent of stormwater system needs is unknown. The estimate [in the 2014 Citywide Assets Report that identified an annual funding gap of \$12.4 million for BES] makes very broad assumptions from the Stephens Creek pilot for both rehabilitation and capacity needs.” CUB followed up on this point and was pleased to learn that BES has been working on identifying the extent of stormwater system needs in its work developing a citywide Stormwater System Plan. This work is very important and CUB supports the level of support for this work proposed by BES for FY 2016-17.

Plan for Updating Cost Allocation Studies and Rate Methodology Review

Three important documents that influence BES financial allocations and planning are ten years old or more. The Capital Cost Allocation Study was done in 1999, the Stormwater Cost Allocation Study was done in 2000, and the Sewer and Stormwater Rate Methodology Review was done in 2005. BES needs to develop a plan to update these documents. This effort should begin with an evaluation of the current documents since maybe their findings have withstood the test of time, but the need for an update seems likely. Evaluation of these studies may not be a budget item for FY 2016-17, but the possible need for initial spending on updating these studies should be evaluated. Planning for these updates should occur in fiscal year 2016-17 even if initial dollars to begin this process are not needed in that fiscal year budget.

Of particular concern is reviewing new options for the allocation of costs for stormwater management projects since that field has changed significantly in the last fifteen years. Getting input on any financing innovations from other sewer and stormwater management utilities is suggested, particularly in regard to green infrastructure. It seems prudent to review the timeline for updating the Stormwater Cost Allocation Study in the context of the timing of work on the Stormwater System Plan since there may be helpful synergy between these two efforts. At the very least an updated Stormwater Cost Allocation Study seems necessary to ensure that appropriate financing planning tools are in place to ensure timely and effective implementation of projects that will result from the Stormwater System Plan.

Plan for Sunset of Clean River Rewards

On June 30, 2017, the Clean River Rewards program is scheduled to end. This program provides a significant discount of on-site stormwater charges if actions are taken to manage stormwater on the customer’s property. Approximately 20 percent of single family customers participate in this program and though it is a significant benefit to them, reduced revenue from these customers is a factor in calculating needed rate increases for the system as a whole which raises fairness and equity concerns. A decision needs to be made during FY 2016-17 on ending, retaining, or adjusting the Clean River Rewards program that would then be reflected in the development of the FY 2017-18 budget. This may not be a FY 2016-17 budget item, but it necessary for BES to factor into their FY 2016-17 planning the need to make a decision about the Clean Rivers Reward program.

Evaluating the Clean River Rewards program may dovetail with updating the Stormwater Cost Allocation Study mentioned above since it discussed an earlier version of a stormwater credit program. If it is determined that updating the Stormwater Cost Allocation Study would inform evaluation of the Clean River Rewards, CUB is open to an extension of the 2017 sunset date as long as there is a clear commitment for a timely evaluation of the current credit program.

Capital Improvement Planning (CIP) Projects

Columbia Boulevard Waste Treatment Plant (CBWTP) Administration Building

CUB is pleased that BES is incorporating recommendations from the Auditor's report on the Columbia Building into its approach to assessing office space needs at CBWTP and the potential remodel of the administration building at that site. Also recommended is incorporation of CUB and the PUB in that assessment and planning. This could be a component of briefing CUB and PUB on CBWTP facilities generally since there are likely future CIP expenditures at CWBTP linked to renewal of the NPDES permit and updating the CWBTP facilities plan in 2016. Input should also be sought from the site specific CBWTP advisory group that focuses on neighborhood concerns. The PUB does not replace this advisory group, but the PUB's focus on fiscal impacts of this CIP project within a broader context is complementary to the input gathered from the site specific CWBTP advisory group.

Pause the CBWTP Biogas Utilization Project (E10033) and Delay Organic Waste Receiving Facility (E10804) Related to Biogas Production

Introduction

These two projects could result in an innovative multi-faceted set of improvements in partnership with a private utility, NW Natural, and a private garbage hauler, Waste Management, that meet energy efficiency and environmental protection goals in economically sound construction projects that benefit ratepayers. CUB supports such a result. However, given the many "moving parts" in these two projects and that NW Natural has not met initial timelines in development of firm agreements (such as the price it will commit to pay BES for renewable natural gas) CUB is concerned that what could be a wonderfully positive story of innovation could end up being a damaging story of economic imprudence by BES due to incomplete information from potential partners.

For this reason, CUB recommends pausing on the biogas utilization project until a firm commitment is obtained from NW Natural, including any needed regulatory approvals. Our follow up recommendation is to delay the beginning of the organic waste receiving facility. This could take the form of removing it as a new project in the FY 2016-17 capital improvement (CIP) budget. Another approach, though, is to retain it in the CIP budget so that it is included in financial forecasting but in this case CUB strongly recommends clearly flagging this project as being contingent on resolution of concerns about the biogas utilization project.

The complexity of these two projects and the possible perception that their energy conservation and environmental protection elements make them inappropriate BES projects contributes to CUB also recommending that BES bring these two projects to the Portland Utility Board (PUB) for review and input. Indeed, at the PUB meeting on November 23, a member of that group highlighted the role that the PUB could play in working with BES on projects that are complex and vulnerable to inadvertently becoming boondoggles or just perceived as being inappropriate. In this memo CUB is already playing that role in regard to these two projects and we would welcome input from the PUB.

Another reason for CUB's recommendation to involve the PUB is that these projects would also help BES determine how to best differentiate in the CIP planning process when a project, like the organic waste receiving facility is a new project or should be considered an expansion of an existing project. CUB thinks that BES made the right call in considering the organic waste receiving facility as a new entry into its CIP planning process, but there is also a valid rationale for considering it an extension of the biogas utilization project. At the very least it seems helpful for BES to identify a way to clearly mark new projects that are only or primarily being suggested due to an earlier project. PUB input on this particular challenge on how to designate related projects in the CIP planning process could be helpful.

Background on Biogas Utilization Project

Anaerobic digestion is one of the sewage treatment steps at CBWTP and it produces methane gas. Commendably, all but 23 percent of the methane gas currently produced is either used as an energy source on site or sold to a neighboring private company that uses the energy in its production of roofing tar. The current practice of flaring the unused biogas does reduce greenhouse gas emissions by converting the methane, which is a particularly damaging greenhouse gas, to carbon dioxide, a less damaging greenhouse gas.

BES began thinking about cost effective ways to use the remaining 23 percent of methane several years ago culminating in a March 2014 assessment by a consulting engineering company that reviewed a range of options. The recommendation was to treat the methane to meet natural gas standards (called renewable natural gas or RNG) with a focus on then compressing the gas (CRNG) for motor vehicle use on the CBWTP site. This recommendation set the stage for City Council approval of BES moving into a predesign step. Planning throughout 2015 lays the groundwork for budgeting of approximately \$9.5 million in the draft FY 2016-21 CIP plan. CUB's "pause" recommendation reflects the need for additional review of next steps for the biogas utilization project primarily due to incomplete information from NW Natural.

The predesign step is underway and reflects expanded thinking about the option of selling RNG directly to NW Natural Gas via their pipeline that runs adjacent to CBWTP along Columbia Boulevard. BES also plans to build an onsite CRNG fueling station at CBWTP for use by city vehicles and by privately owned sludge haulers that operate at CBWTP. This onsite fueling station is one of the requirements of a \$2 million Oregon Department of Energy alternative fuel vehicle infrastructure tax credit that BES was recently awarded and must be used within about three years.

CUB has questions about use of the onsite CRNG fueling station, but more importantly CUB has questions about the potential BES agreement with NW Natural both in terms of the sale price for the RNG supplied by BES into their Columbia Boulevard pipeline and the value of any potential greenhouse gas emission reduction value of displacing transportation fuels with CRNG. NW Natural's interest seems to be linked to adding RNG to their system increasing the economic effectiveness of using their product as feedstock for compression and use as motor vehicle fuel. Displacing transportation fuels, especially diesel, is a major US EPA goal which is a contributing factor in the development of Renewable Identification Numbers (RINs) to track financial benefits are an option when eligible biomass-based feedstocks are used to create renewable transportation fuel. However, it is now less clear what exact role transportation fuel related benefits is playing in NW Natural's thinking. It is very important to get updated information from NW Natural on this point to ensure complete and accurate economic analysis of this project.

Oregon's SB 844 is also part of this discussion since it is intended to provide an incentive for our state's natural gas utilities to undertake voluntary greenhouse gas emission reduction projects. SB 844 projects require approval by the Public Utility Commission (PUC) and must meet two goals: carbon dioxide reduction and customer benefits. This can mean that an Oregon utility like NW Natural can pay more for RNG than it would for natural gas from its traditional non-renewable sources, but the customer benefits requirement could mean that the PUC might not approve a project that involves purchase of RNG at too high a price. While the BES biogas project may not end up being a SB 844 project, that possibility still exists.

BES is basing its economic analysis of this project on a \$10 per mmBTU sales price of its RNG to NW Natural while natural gas is currently selling for about \$2.18 per mmBTU. Since SB 844 is intended to provide an incentive to use RNG, the point here is not that NW Natural gas shouldn't be paying more than \$2.18 per mmBTU for RNG. But it does seem possible that the PUC might not approve this project if it determines that NW Natural paying \$10 per mmBTU is too much even when factoring in greenhouse gas reduction benefits.

A full disclosure statement from CUB is that we will review a BES/NW Natural project from both the perspective of BES ratepayers, who would benefit from a high RNG sales price, and NW Natural ratepayers, who shouldn't be paying too high a price for RNG, especially if other greenhouse gas emission reductions or other community benefit goals are not met. CUB will also consider those natural gas customers outside of the Portland area whose potentially higher NW Natural rates aren't offset by financial benefits to BES.

CUB is committed to a win-win situation for NW Natural ratepayers, BES ratepayers, and the greenhouse gas reduction goals of SB 844, to the extent that these goals come into play. But to ensure a win-win situation CUB believes that BES needs a firm commitment from NW Natural before moving forward on either the biogas utilization project or the related organic waste receiving facility.

CUB has learned that NW Natural is evidently not convinced that they should pursue this proposal as a SB 844 project. NW Natural could propose this partnership with BES as a pilot project that the PUC would evaluate by balancing the economic interests of shareholders and ratepayers without consideration of greenhouse gas benefits. Depending on the goals ultimately outlined for a pilot project, however, rejection by the PUC seems possible because the cost of the RNG could be considered to be too high and not a prudent expenditure.

NW Natural is seeking a new option that CUB has seen in a legislative concept sent to us by Representative Peter Buckley for our review. NW Natural's legislative idea raises concerns for CUB since it requires the PUC to approve a natural gas utility's participation in a project like the BES biogas effort. Removing the PUC's discretion in evaluating such a project inappropriately diminishes protection for ratepayers and CUB may well oppose this bill. NW Natural's legislative proposal, though, does seem to validate CUB's concern that the PUC would find a RNG \$10 mmBTU sale price too high in a SB 844 project even with their discretion to factor in greenhouse gas reduction benefits.

However, a recent meeting on this legislative approach suggested that parties would prefer to focus on the project within the context of SB 844 or another kind of pilot project rather than the legislative proposal. That discussion is ongoing. Regardless of the project format, however, CUB firmly believes that a clearer commitment than is currently available from NW Natural is critically important for an updated economic analysis and must be obtained before BES moves forward on the biogas utilization CIP project.

Background on Organic Waste Receiving Facility

The predesign work currently underway on the biogas utilization project indicated the need for some storage capacity to deal with fluctuations in levels of methane production in the biodigesters prior to the step of treating the methane to become RNG. Storage capacity, though, turned out to be quite expensive. If the RNG treatment facility was larger than originally planned, however, then storage is no longer required.

A larger RNG facility looks feasible due to the potential for two new off-site feedstocks for the CBWTP biodigesters, organic food waste slurry¹ from a Waste Management facility that may be sited close to CBWTP along Columbia Boulevard and use of fats, oil, and grease (FOG) from restaurants and other commercial food preparation facilities. The current biodigesters have the capacity to handle these additional feedstock sources. Waste Management is looking for opportunities to effectively use the food wastes collected by their garbage haulers and BES could benefit from lessons learned at pilot projects in New York City and Los Angeles where Waste Management is producing food waste slurry for biogas production at sewage treatment plants in those cities. With significant education efforts by BES, restaurants in Portland have learned how to comply with a recently enacted grease ordinance. Now these restaurants and other food preparation facilities need a way to dispose of the FOG they are diverting from entering the sewers. Being able to use FOG as a biodigester feedstock at CBWTP looks to be a very good solution.

Nevertheless, CUB is recommending removing the organic waste facility from the FY 2016-17 five year CIP plan or clearly signaling that this effort will be contingent on needed clarity about the biogas utilization project. We do not oppose this idea; rather we think a delay is prudent since we are recommending a pause on the biogas utilization project until a firm agreement is reached with NW Natural.

It is good to know now, though about the likely increased RNG production capacity of the biogas utilization project due to adding the organic waste receiving facility so that food waste slurry and FOG material can be used as additional feedstock. The original assumption discussed with NW Natural was that BES would be producing approximately 100,000 dekatherms of RNG annually, but the expanded capacity would increase RNG annual capacity to 240,000 dekatherms. This is an important possibility to factor into continued development of the original biogas utilization project and CUB will keep this increased capacity in mind when evaluating NW Natural's legislative concept discussed earlier.

Suggested Next Step for Biogas Utilization and Organic Waste Receiving Projects

CUB proposes a meeting for a discussion of these two projects with CBTWP staff, BES business services staff, Jim Blackwood from Commissioner Fish's office, CUB, and the Bureau of Planning and Sustainability staff person who took over review of energy implications of this work upon Dave Tooze's retirement. Also invited would be any interested members of the PUB as well as PUB staff and the BES analyst at CBO. This meeting is scheduled for mid-January.

CUB has developed detailed questions that we would submit in advance to jump start this discussion. For example, is a \$10 mmBTU RNG sale price needed to make the biogas utilization project economically feasible and, if not, what is the minimum price that is economically acceptable? We would also provide updates from our discussions with PUC staff, NW Natural, and Representative Buckley.

¹ A suggestion in the description of E10804 is to clarify that the commercial food wastes will have been processed offsite so that what is being received at CBWTP is a food waste slurry. This may seem like a minor item, but onsite processing of food waste would likely be objectionable to neighbors so clarity in the description could prevent unwarranted concerns. In general, the proposal is for a receiving facility and not a processing facility and this should be reflected in the project description.