Lincoln Public Schools

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To: School Committee
Rebecca McFall
From: Buckner Creel
Subject: Recommendation for Award – Commodity Electricity and Natural Gas Supply

Background The Lincoln Campus is powered by electricity delivered by the local utility NSTAR. Each monthly expense is composed of two parts: a charge from NSTAR for delivering the electricity and a commodity electricity charge for the electricity itself. The Lincoln Campus is heated by natural gas delivered by the local utility National Grid. Each monthly expense is composed of two parts: a charge from National Grid for delivering the gas and a charge for the commodity gas itself.

Current Situation The way the electricity market in New England has changed over the past eight years will affect the prices we receive for both electricity and natural gas in the next several years. Increasingly, electricity is generated in New England through the burning of natural gas. As cheaper coal-fired and nuclear plants go off-line, more natural gas is used to generate electricity, requiring the generators to reserve pipeline capacity to support their supply. The pipeline expansion projects are still several years off, so the competition for (and resulting price of) guaranteed pipeline capacity has greatly increased. Furthermore, the strain on this capacity is exacerbated during cold winters, when added loads from heating strain not only the "natural gas for heating" system but also the "natural gas for electricity generation" system. Several times during the past winter it became difficult to bring peaking plants on line to generate the electricity required for increased loads from all-electric home heating; the pipelines were maxed out, and additional spot capacity was not available.

This situation for electricity is expected to continue for the next several years; some pipeline capacity improvements may occur in 2017 or 2018. We have received advice from several sources to lock in electricity prices for either an 18-month or a 24-month period, but no longer. A 24-month period would also align neatly with our fiscal years.

The supply of natural gas in the United States has increased significantly in the past four years. New England benefits from this increased supply directly, as the overall supply of system gas continues to increase. The extent of the benefits is limited, though, because the interconnections to pipelines and the pipeline capacity to New England itself is limited. So, the increase in cost of reserving pipeline space ("basis charge") balances out somewhat the decrease in cost of the natural gas itself ("NYMEX charge"). The cost of the natural gas itself ("NYMEX charge") reached historic lows this summer, and our "basis" as a small user is not as subject to large swings as those affecting very large users. We may be able to take advantage of longer lock-in periods for the natural gas supply.

Commodity Electricity Supply

History For the past seven years, through two successive contracts, we have purchased the commodity electricity through the PowerOptions collaborative from a supplier, Direct Energy, at pricing that remains constant over the life of the contract period and does not fluctuate from season to season, as do the commodity electricity prices from NSTAR. The district has benefitted from the resultant budget predictability. The current contract from Direct Energy provides a price of $.07759 per kilowatt hour (kWhr) and expires at the first

meter read in June 2015, so the district must arrange for the supply of commodity electricity for subsequent periods.

At the time we entered into the first contract agreement, the Lincoln Water Department and the Lincoln Library joined us by piggybacking on our PowerOptions collaborative membership to provide power for their six and our four accounts. Both the Water Department and the Library have notified us that they wish to continue to purchase commodity electricity through a long-term arrangement and look to us to find a deal for them. At the time of the second contract procurement, the Town took its 14 accounts off the NSTAR Basic Service and entered into a long-term arrangement with Direct Energy; they also wish to join in this renewal procurement. We will look for the best value for all 24 accounts as the procurement strategy.

Procurement alternatives. Energy contracts are exempt from the bidding provisions of MGL Chapter 30B. Our attorney has verified that we can craft our own procurement process and enter into an agreement for a period up to six years. Nevertheless, we look to acquire goods and services through a competitive process whenever possible. For the past seven years we have belonged to the PowerOptions collaborative, sponsored by the Massachusetts Health and Education Financing Authority (MassHEFA). PowerOptions enters into long-term agreements on behalf of the collaborative members, following a competitive process outlined in the attached due-diligence letter. Their current agreement continues the relationship with Direct Energy, and allows for locking in electricity supply rates for up to four years, through May 2019. The PowerOptions contract, negotiated on behalf of the members, provides a "parent-company" guarantee which is singular in the industry, and the PowerOptions staff is available to resolve billing issues and disputes, and to provide advice.

By ourselves, the Schools annual purchase of approximately 960,000 kilowatt hours (kWhr) of electricity is too small to warrant attention from commodity electricity suppliers. Like homeowners, our main alternative would be to purchase from NSTAR at rates that vary seasonally. In the past two contract procurements, in the interest of ensuring that the PowerOptions pricing is in line, even though it results from a competitive process, the efforts of a power broker were sought. In all cases, the broker prices were approximately the same as the PowerOptions prices, but had unattractive contract provisions and additional administrative requirements.

Direct Energy provides daily prices (the "matrix price") for the various meter classes to the PowerOptions staff. These prices are for a one-, two- or three-year period beginning June 2015. Upon request, they will provide pricing for up to four years for a specific collection of accounts (the "discrete price"). The consensus among several energy industry advisors is seek a two-year contract, as near-term fundamentals in the gas market are currently down, but suppliers are tacking on a factor to cover uncertainty in the out years. A two-year term provides budget stability, and we can explore going out an additional two years in the fall of 2017.

Finally, we explored discrete pricing for several scenarios. The initial review showed that the Town accounts follow approximately the same usage pattern as our School accounts. Accordingly, our accounts were not penalized by being lumped in with the Town accounts, so pricing for all 24 accounts for a two-year period beginning with the first meter read in June 2015 continues to be the approach we will follow.

Quantitative (price) analysis. A quantitative analysis of two alternatives follows.

Non-procurement (default) alternative. The current NSTAR Basic Service fixed rate for the period July 1 through December 31, 2014 for rate class *Small Commercial/Industrial Customers and Lighting* is $0.09078 per kWh (versus our current $.07759 per kWhr), which is expected to climb higher after January 1, 2015. All of the School accounts and Town accounts fall into this rate class. As an indication of this expected increase, the Basic Service variable rate for our rate class was $.08902 in July, will be $.09520 in November and climbs to $.13203 in December. This rate provides a point of comparison with the rate offer discussed below, demonstrating that procuring commodity electricity from a third-party supplier continues to yield cost savings for the Schools, and will provide savings going forward for the Town as a whole.

Direct Energy through PowerOptions. Direct Energy has quoted the following "discrete price" rates that represent a single, aggregate price that would cover all 24 accounts for both School and Town. This information is indicative pricing; the actual rates we would be charged depend upon the current market at the time we locked in.

Direct Energy "Discrete" Offer	$/kWh	Annual Cost to Schools
Current commodity price	$0.07759	$74,486
All 24 Town & School Accounts – 12 months	$0.11475	$110,160
All 24 Town & School Accounts – 24 months	$0.11877	$114,019
All 24 Town & School Accounts – 36 months	$0.12560	$120,576
All 24 Town & School Accounts – 48 months	$0.13061	$125,386

The two-year rate for all 24 accounts appears to offer the best compromise between cost-savings and budget stability.

Qualitative (value) analysis. Two factors other than price should also be considered in analyzing these alternatives:

1. <u>The PowerOptions contract has better terms</u>.

   - Parent Company Guarantee. The supplier of electricity under the PowerOptions contract is Direct Energy Business, LLC, a subsidiary of Centrica plc. Centrica supplies energy to 13 million customers in the UK and 6 million customers in North America. The PowerOptions contract requires Centrica plc to deliver a financial guarantee in the amount of 150% of the cost exposure for all accounts registered by us with Direct Energy. In the event of Direct Energy contract default, the Centrica guarantee is available to pay the amounts Direct Energy is obligated to pay under the contract terms.

   - Switching Onto and Off Utility Supply Service. The PowerOptions contract does not permit switching onto and off utility supply service. We view this as gaming the system and contrary to DPU intent and good public policy. Direct Energy is required to hedge the participant's expected requirements in the forward markets once a contract is signed. Other contracts allow the supplier to switch our accounts on and off NStar.

   - Creditworthiness. The PowerOptions contract contains a provision which is much more narrowly drawn by providing for an initial credit review, within the first five days only, with no additional credit review thereafter. The contracts of other power vendors have included clauses which allow them to terminate contracts at any time

during the contract period which they find to be onerous in any way, including contracts which are unprofitable or require the provision of electricity at below-market rates. Under these kinds of contracts, creditworthiness is broadly drawn and may be invoked to their advantage at any time during the contract period.

- Timely Payment. The PowerOptions contract provides for a late charge for 30 days, then an additional noticed 30-day period, and then possible termination. Additionally, PowerOptions will intervene with Direct Energy on our behalf should we fail to make a timely payment. The contracts of other vendors have included failure to make payment when due as an "Event of Default" which allows them to terminate the contract upon written notice.

2. <u>The PowerOptions contract requires no start-up and less administration.</u>

- As touched on earlier, PowerOptions provides customer service assistance and dispute resolution support with Direct Energy, should either become necessary.

- Switching suppliers costs the Business Office extra effort by adding vendors, making sure bills are correct, etc. We went through this once already, and PowerOptions helped us out. Switching from Direct to a new vendor will run the same problems, without the assistance of PowerOptions available. In effect, the new contract will continue the relationship built up for the current 24 accounts over the past seven years.

Timing of Decision. Making a decision to lock in prices now for a two-year period beginning June 2015 has the following advantages:

- Budget stability and predictability. We will know the prices for our FY16 budget near the beginning of the FY16 budget process, before the Committee votes on a final budget proposal for Town Meeting.

- Low near-term pricing. Increased natural gas set low prices last summer. Since the price of electricity in New England is bound tightly to the price of natural gas, it is hard to imagine a set of circumstances that will drive the price much lower in the future.

- Low out-year pricing. The spread between the 12-month and 24-month pricing is small (3.5%), making it reasonable to lock in prices for a slightly longer term.

- Price of electricity is likely to increase. Both the US and world economies appear likely to continue to strengthen in the near term, which will increase the demand for natural gas. China, India and Brazil are growing energy users which will put pressure on energy resources and drive up cost.

We could wait until April 2015, the next natural window for favorable price adjustments, in the hopes that some circumstances arise between now and then that will result in even lower prices. Success under that strategy seems unlikely, and so there appears to be no advantage in waiting to lock in prices.

<u>Commodity Natural Gas Supply</u>

History For the past seven years, though two successive contracts, we have purchased the commodity natural gas for our heating plant from a supplier, Direct Energy, at prices that remain constant over the life of the contract period and do not fluctuate from season to season, as do the commodity gas prices from National Grid. The district has benefitted from

the resultant budget predictability. Recently, Direct Energy was purchased by Direct Energy, who assumed all contract obligations. The current contract from Direct Energy expires at the end of October 2015, and the district must arrange for the supply of heating gas for the 2015-2016 heating season, as well as consider opportunities for future heating seasons.

Procurement alternatives. Energy contracts are exempt from the bidding provisions of MGL Chapter 30B. For the same reasons described above, for the past eight years we have purchased our commodity natural gas through the PowerOptions collaborative. PowerOptions enters into long-term agreements for natural gas on behalf of the collaborative members, following a competitive process outlined in the attached due-diligence letter. Their current agreement continues the relationship with Direct Energy, and allows for locking in gas supply rates for up to four years, through October 2019.

By ourselves, our annual purchase of 11,000 to 12,500 decatherms of gas is too small to warrant attention from commodity gas suppliers. Like homeowners, our main alternative would be purchase from National Grid at rates that vary seasonally.

Price analysis. Commodity gas rates from a supplier are composed of two parts: "Basis," or reservation of pipeline capacity, and "NYMEX," or the cost of the gas as it trades in the New York futures market.

The current contract rates from Direct Energy for a decatherm of gas were locked in October 2010 at:

Term	Basis	+ NYMEX	=	Total
48 months Nov11-Oct15	$3.649	$5.56	=	$9.209

Direct Energy has quoted the following rates that represent a single, weighted-usage price that would cover both summer and winter seasons for the quoted period. This information is indicative pricing; the actual rates we would be charged depend upon the current market at the time we locked in.

Term	Basis	+ NYMEX	=	Total
12 months Nov 15 - Oct16	$3.882	$4.133	=	$8.015
24 months Nov 15 - Oct17	$4.017	$4.196	=	$8.213
36 months Nov 15 - Oct18	$4.072	$4.261	=	$8.336
48 months Nov 15 - Oct19	$4.100	$4.322	=	$8.422

Rates for the next winter heating season have not been released; for the last winter period, November 2013 – April 2014, the National Grid price started at $6.727 and was increased to $8.335.

Depending upon the period chosen, accepting one of the Direct Energy rates would allow us to reduce the heating budget between $8,600 and $15,000 annually, with the actual savings depending on the current market conditions at the time we lock in, the lock-in period and the amount of gas consumed.

Timing of Decision. Making a decision to lock in prices for periods beginning November 2015 has the following advantages:

- Budget stability and predictability. We will know the prices for our FY16-FY18 or FY19 heating budget at the beginning of the FY16 budget process.

- Low near-term pricing. Natural gas set another low price this summer, and we have had good storage injection rates since. It is hard to imagine a set of circumstances that will drive the price much lower in the future.
- Low out-year pricing. The spread between the 12-month and 48-month pricing is small, making it reasonable to lock in prices for a longer term.
- Demand for gas is likely to increase. Both the US and world economies appear likely to strengthen in the near term, which will increase the demand for natural gas. China, India and Brazil are growing energy users which will put pressure on natural gas resources and drive up cost. It is only a question of time before the domestic market is freed to export liquidified NG and the price goes back up.
- Price of alternatives will increase. National Grid is expected to file for a winter commodity gas rate higher than last year's rate of $8.335.

There appears to be no advantage in waiting to lock in prices. As long as the spread between the 12-month and 48-month rates (which sets the premium for predictability) remains low (at 5.4%), locking in rates for a longer term seems to provide positive value to the district.

Conclusion and recommendation. The preferential contract terms and ease of contract administration with the Direct Energy contracts continue to provide budget stability and some savings.

- Recommend that the School Committee approve the purchase of commodity electricity from Direct Energy through the PowerOptions collaborative, and authorize the administration to lock in prices now, for a two year period at the rates available at the time of lock in.
- Recommend that the School Committee approve the purchase of heating natural gas supply from Direct Energy through the PowerOptions collaborative, and authorize the administration to lock in prices now, for up to a four year period, depending upon the rates available at the time of lock in.