



Metro Nashville

DISTRICT ENERGY SYSTEM

**Metro District Energy System Advisory Board
Regularly Scheduled Meeting of
March 5, 2015**

Minutes of Meeting

The meeting was held at the Energy Generation Facility at 90 Peabody Street Nashville, TN 37210

Facilitators: Harry Ragsdale, DES Project Contract Administrator and Kevin Jacobs, Thermal Engineering Group

Board Members Present:

Karen Bennett
Richard Fletcher
Alan Robertson
Brian Taylor
Tom Eddlemon (*on behalf of Richard Riebeling*)
Jim Thiltgen (*on behalf of James Harbison*)
Glenn Mohon (*on behalf of Nancy Whittemore*)

Board Members not Present:

Yuri Cunza
James Harbison
Richard Riebeling
Tom Turner
Nancy Whittemore

Others Present:

Tim Hestle, CEPS General Manager
Kevin Jacobs, TEG
Bob Lackey, DES Liaison
Seretha Nobbin, DES Advisory Board Secretary
Harry Ragsdale, TEG

The meeting was called to order by the Chair and began at 10:09 A.M.

A motion to approve the minutes of the August 21, 2014 and November 20, 2014 Board Meeting was made, seconded and approved by the Board.

At the request of the Chair, Mr. Ragsdale proceeded with the presentation to the Board.

Mr. Ragsdale reviewed the customer cost comparison table for the first of FY15. On an aggregate basis for the previous twelve (12) months, the steam costs were up 13.5% with only a small increase of consumption. This was a cooler quarter than the previous year. The reason the unit price change appears so significant is because our gas costs were lower than last year. The example used was a 50% change of gas causes about a 12.5% change in our total unit cost. This is the benefit of low price gas and why that unit price has an appearance of significance. The chilled water cost increase is primary related to the cost of energy. In this case the electric cost has been going up regularly about 12-15 % per year and that's the reflection of the change in the cost mostly associated with electrical.

Kevin Jacobs reported consumption is down in chilled water for everybody and proceeded to talk about the Historic Customer TIFS (Thermal Inefficiency Fuel Surcharge). This is a surcharge that all the customers pay if their chill water Delta T is less than their contract Delta T. The most significant issue with low Delta T's is that the customer is flowing significantly more water than they should and their building pump is using



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more electricity. The additional flow requirements then increase the pumping costs at the EGF causing all customers to experience the additional cost. The penalty charges the customers see are the TIFS. They are based on 1% of their monthly contract demand charge per degree Fahrenheit below their contract Delta-T.

Mr. Ragsdale concluded to report that when DES was operating at only 70% of plant capacity they allowed a few of their customers to lower their set-back (TIFS charges still applied). DES is now at full capacity and the buildings that once received the benefit of lowering their set point will no longer have that benefit. DES can no longer support their in-building system problems.

Mr. Ragsdale and Mr. Jacobs discussed the contractor's performance for the previous quarter relative to their contract performance guarantees for electricity, water, and plant efficiency. The contractor's performance remains very good.

Mr. Jacobs discussed the contractor's performance for the water treatment. The chilled water chemistry is showing signs of bacteriological growth and therefore gets a yellow dot (meaning it could be a problem and we have to keep an eye on this) and is mostly tied to some of the Delta-T Issues that the system is experiencing.

Mr. Jacobs reported this quarter's EGF walkthrough found the facility in very good condition. The EDS walkthrough continues to recognize water infiltration issues at a number of our underground vaults. They are being addressed as is the corrosion of the steel components.

Mr. Jacobs noted actual gas spending relative to the budgeted fuel consumption was higher than budgeted as a result of steam sendout being higher due to colder weather; however, the plant efficiency was improved. Fuel costs were generally on budget for the first two quarters.

Mr. Jacobs and Mr. Hestle discussed the recent gas curtailment experience. The plant continued to operate during the curtailment even though it experienced some equipment issues. System pressures were extremely low on a couple of occasions as a result of the equipment issues; however, no customer experienced a steam outage. As a result of the gas curtailment, fuel costs will be higher than budgeted during the 3rd quarter due to the need to use propane.

Mr. Ragsdale and Mr. Jacobs reviewed the Active Capital Projects. Manhole & Tunnel Steel Corrosion Repair & Prevention is ongoing. AA Birch Tunnel Repairs are complete. Time of Use (TOU) billing remains a goal and they continue to research methodology for making TOU invoicing. West Riverfront Park Manhole repairs are commencing. EGF Alternate Fuels Evaluation is nearly complete. The EGF Combined heat and power project is still under evaluation and it remains a viable opportunity to reduce operating cost and improve system reliability and capacity.

Without further discussion, and upon a motion, the meeting was adjourned by the Chair.

The next Board Meeting will be held Thursday, May 21, 2015 at 10:00 A.M.

Prepared by: *Seretha Nobbin* Approved: *Bob Lachy*
Seretha Nobbin, DES Advisory Board Secretary **Karen Bennett, Chair, DES Advisory Board**
Date: 8/20/15 Date: 8/20/15
Karen Bennett



Approved: Bob Lackey

Bob Lackey, DES Liaison

Date: 8-20-15