

Norfolk Power Distribution Inc
Responses to
VECC Technical Conference Questions

RATE BASE

1. Reference: Board Staff # 21

- a) Please update the 2011 subdivision costs based based on projects completed at year end.**

Response:

Year	2011
Norfolk Power Costs	\$183,000
Capital Contributions	\$155,000

- b) How many new lots were serviced in 2011?**

Response:

Norfolk connected 250 new services in 2011, 111 services were new subdivision lots.

LOAD FORECAST AND REVENUE OFFSETS

2. Reference: Board Staff #41

- a) **Please confirm that actual values reported for January – August 2011 have not been weather normalized.**

Response:

Norfolk Power confirms that actual values reported for January – August 2011 have not been weather normalized.

- b) **Please confirm whether the “Predicted Power Purchased” values shown are based on weather normal conditions or the actual HDD/CDD values for each month.**

Response:

Norfolk Power confirms that the “Predicted Power Purchased” values shown are based on weather normal conditions for each month.

- c) **If the predicted values are based on weather normal conditions, please re-do the “predicted values” using the actual weather conditions for each month.**

Response:

Please see table below. Predicted values now incorporate actual weather conditions for each month shown in the table, and reflect the new load forecast referenced in response to Board Staff technical conference #12.

	Actual Power	Predicted Power	
	Purchased	Purchased	Variance
Jan-11	32,485,439	34,402,021	5.6%
Feb-11	29,660,294	31,089,653	4.6%
Mar-11	29,778,712	30,999,299	3.9%
Apr-11	26,184,532	27,854,331	6.0%
May-11	25,783,818	27,653,240	6.8%
Jun-11	28,197,703	29,000,610	2.8%
Jul-11	35,364,832	36,730,109	3.7%
Aug-11	32,366,281	32,102,006	-0.8%
	239,821,610	249,831,269	4.0%

3 Reference: Board Staff #42

a) In Table 2.5 of the original Application please confirm whether the predicted values for 2003-2010 are based on that year's actual HDD/CDD values or the weather normal values.

Response:

Norfolk Power confirms that in Table 2.5 of the original Application that the predicted values for 2003-2010 are based on the year's actual HDD/CDD values.

b) If based on actual values, please reconcile this fact with the response to Board Staff #42.

Response:

The predicted values are based on a prediction formula that uses actual HDD/CDD values in the formula. However, the prediction formula is based on the equation resulting from the regression analysis that has used actual values within the regression analysis. The regression analysis only assigns one coefficient to each variable used in the prediction formula that provides the best fit or Rsquare and Adjusted Rsquare values. To a certain degree the coefficient that provides the best fit reflects the average value of the variable considering all other variables as well. As a result, when the actual value of the variable is used in the prediction formula and the coefficients is positive the resulting prediction will be somewhat higher than the actual when the actual value is higher than the average and somewhat lower when the actual value is lower than average.

For the purposes of weather normalization the average monthly HDD and CDD is used in the prediction formula to produce a weather normalized forecast. The averaging process used in the weather normalization process is with the HDD and CDD variable on a standalone basis. The averaging process addressed above and referred to in response to Board staff 42 takes into consideration all the other variables used in the prediction formula that provides the best fit.

c) If based on "weather normal values", please re-do Table 2.5 using the actual HDD/CDD values for each year as the basis for the prediction.

Response:

Table 2.5 submitted with the original Application was based on actual HDD/CDD values for each year. Re-doing Table 2.5 is therefore not applicable.

4 Reference: Board Staff #43

- a) **What does the 7.5% translate into in terms of kWh savings for the month and for the year to date?**
- b) **Please explain the basis for the 7.5% kWh savings value quoted as at September 2011.**

Response (parts a & b):

The 7.5% kWh savings was actually as of the end of the second quarter 2011, and represents the 2011-2014 net cumulative energy savings expected in 2014 from programs completed to date. As at the end of June 2011, 0.30 GWh of savings were achieved. This calculates to a cumulative energy savings of 0.60 GWh in 2014 or 7.5% of Norfolk's target of 15.68 GWh. Norfolk received this information as part of the OPA Management Status Report, which provides the data on a quarterly basis.

As at the end of September the energy savings as of Q3 2011 was 0.37 GWh, translating into a net cumulative energy savings of 1.47 GWh expected for 2014 or 9.4% of Norfolk's target.

For additional clarity please see the response to Board Staff Technical Conference Question #11 and the associated appendix which provides the Ontario Power Authority Q3 2011 Conservation & Demand Management Status Report.

**5 Reference: Board Staff #5
Energy Probe #16 b)**

a) Please explain why the RRWF was not revised to reflect the updated load forecast for 2012 as per Energy Probe #16 b).

b) If appropriate, please provide a revised RRWF.

Response (parts a and b):

Norfolk responded to Energy Probe #16b) but did not update its load forecast at that time. Norfolk recognizes the need to do so and will provide a revised RRWF in response to EP #11b which also incorporates this change.

6. Reference: Energy Probe #18

a) Please update the response to reflect the most recent year-to-date values for 2010 and 2011.

Response:

Please see the table below outlining the year-to-date actual consumption for 2011 supplied by Norfolk to Hydro One.

Jan-11		2,663,144
Feb-11		2,023,259
Mar-11		3,229,491
Apr-11		2,265,222
May-11		2,372,260
Jun-11		2,320,178
Jul-11		2,992,931
Aug-11		3,810,455
Sep-11		4,153,426
Oct-11		3,013,035
Nov-11		2,806,428
		31,649,829

Please see the table below outlining the year-to-date consumption for the same period in 2010.

Jan-10		2,574,638
Feb-10		2,259,258
Mar-10		2,160,417
Apr-10		1,838,134
May-10		1,706,054
Jun-10		2,120,246
Jul-10		2,858,814
Aug-10		4,158,261
Sep-10		4,041,059
Oct-10		2,838,596
Nov-10		2,662,654
		29,218,129

**7 Reference: Energy Probe #19
Board Staff #37 c)
Board Staff #5**

a) Please reconcile the increased number of MicroFit connections reported in Energy Probe #19 for 2010 and 2011 with the annual connections forecast In Board Staff #37 c).

Response:

Board Staff #37c) shows data from Norfolk's Green Energy Plan that was prepared in May/June of 2011. The information provided shows forecasted MicroFit connections for the years 2011 through 2016, including 50 forecasted connections in 2011. Energy Probe #19 shows actual MicroFit connections for 2010 (20) and total forecasted year end connections for 2011 (54) and 2012 (104). Based on Energy Probe #19, the forecasted number of connections for 2011 was 34 (54 total at the end of 2011 less the 20 that were connected at the end of 2010). The forecast differences are the result of more current information available when the Energy Probe #19 response was completed.

Board Staff #5 reports a revised MicroFit Revenue for 2012 of \$5,130. However, Energy Probe #19 reports a value of \$5,103. Please reconcile.

Response:

Norfolk Power confirms that the correct number in Board Staff #5 should have been \$5,103 for its revised MicroFit Revenue for 2012. This was a transformation error.

COST ALLOCATION

8 Reference: VECC #25 a)

a) Please explain why, in the current cost allocation, there are now no Services weighting factors for Street Lights, Sentinel Lights or USL.

b) Please provide the basis for the revised Billing and Collecting weighting factors.

Response (a & b):

The process of producing and collecting a consumer bill, whether it is a residential or GS<50kW bill is virtually identical. The time required to establish a customer in the CIS system, registering them with the MDM/R, requesting billing quantities and verifying the usage data, printing and mailing of the bill is the same for these customer types.

A higher weighting has been applied to the GS>50kW class based on the following considerations. In addition to the processes listed above, a GS>50kW customer requires review and verification of the kW and kVa data, as this is a critical component of their billing process. Some of these customers fall into the interval metered group and require the usage data to be manually transferred to the CIS system, rather than through the automated smart meter system used for the balance of the customers.

As a result of preparing this response, the embedded distributor customer class has been assigned the same weighting factor as the GS>50kw category as these customers are interval metered and require the additional review and verification of the kW and kVa data.

The unmetered scattered load weighting factor has been adjusted to reflect the minimal amount of time spent maintaining these accounts. They do not require monthly reads, meter exchanges, and typically we experience very low customer turnover within this customer class.

The weighting factor for both the street lighting and sentinel lighting classes remain unchanged from the 2008 EDR cost allocation.

9 Reference: VECC #25 b) and c)

a) How many GS<50 customers have transformer rated or poly-phase type meters (i.e., comparable to the 480 Residential customers)?

Response:

660 GS<50kW customers have been equipped with either a transformer rated or poly-phase smart meter.

b) In Sheet I7.1 of the Cost Allocation model all Residential and GS<50 customers are shown as having the \$200 smart meter. Please reconcile this with the response provided to VECC #25 b) which suggests that some of the customers in both classes use poly-phase meter.

Response:

Depending on the service type, customers from both classes may need to be equipped with either a transformer rated or poly phase meter. The revised Meter Capital Sheet shown below in response to 9 f) provides further details as to the meter type, customer category and cost.

c) What is the average cost of these transformer rated/poly-phase meters – on a comparable basis to the \$200 smart meter?

Response:

The average cost of these transformer rated/poly phase meters, installed is \$664.

d) In Sheet I7.1 of the Cost Allocation model the vast majority of GS>50 customers (146 out of 167) are shown as having the \$200 smart meter. However, the response to VECC #25 c) suggests that all GS>50 customers have a different type of meter. Please reconcile.

Response:

A GS>50kW customer requires either a transformer rated or poly phase meter, which is capable of recording kWh, kW and kVar. The average cost of these meter types, installed is \$665.

- e) **What is the average cost of the meters capable of recording demand and vars as used for the majority of the GS>50 customers? Are these meters capable of recording time of use and, if not, why isn't this necessary?**

Response:

The average cost of the transformer rated/poly phase meters, installed is \$665. These meters are capable of recording time of use.

- f) **Please provide a revised Cost Allocation where Sheet I7.1 has been updated to reflect the types of meters (and cost of meters) actually used for each customer class.**

Response:

Please see Sheet 17.1 revised below.

Meter Capital (Sheet I7.1) Revised

Meter Type	Installation Cost per Meter
Residential Smart Meter-single phase	\$200
Residential Smart Meter-transformer rated/poly phase	\$515
GS<50kW Smart Meter-single phase	\$200
GS<50kW Smart Meter-transformer rated/poly phase	\$664
GS>50kW Smart Meter-transformer rated/poly phase, self contained	\$665
GS>50kW with IT & Interval Capability-Secondary	\$2,300
Demand with IT & Interval Capability-Primary	\$20,000