

Stratadyne Group Inc.

November 22, 2013

**Mr. Phil Bowmile, CEO
Enerfreeze Canada Inc.
5000 Yonge Street, Suite 1901
Toronto, Ontario
M2N 7E9**

Sent electronically: phil.bowmile@enerfreeze.ca

Re: Chillers Post Project Measurement Result – Vision, 201 Zenway Boulevard, Woodbridge

Dear Phil:

I am writing with respect to the Post Project Measurement Result of the four chillers at Vision Extrusions Group Ltd. at 201 Zenway Boulevard, Woodbridge, Ontario.

Project Overview:

This project consists of installing EnerFreeze to the four (4) FreezeCO 200 ton chillers (model# FCWCT-200) for process cooling at 201 Zenway Boulevard, Woodbridge.

According to the supplier, EnerFreeze is a refrigeration treatment optimizer, a proprietary chemical formulation introduced to the internal workings of the refrigeration/air conditioning system that improves the operational performance and the efficiency of the system indefinitely.

At Vision, each chiller has 4 x 50 hp compressors. Pre-project Base line measurement was conducted from September 11, 2013 to September 30, 2013. The Base Case Measurement Report is attached for easy reference.

Summary of Post Project Measurement Process:

Energy Pro Power Analyzers were connected to Chillers # 1 to # 4 on October 30, 2013 to measure the voltages, current, power factor and kW of each chiller at 1 second intervals for about 60 minutes. ACR Smart Reader Plus 3 data loggers were installed to measure the average line current of Chiller # 1 to Chiller #4 at 1 minute intervals from October 30, 2013 to November 14, 2013.

The 1 minute current data were converted to 1 minute kW data using the voltages and power factors measured using the Power Analyzers. The 1 minute kW data were then converted to hourly kW data by calculating the rolling average of the consecutive sixty (60) 1 minute interval data.

The Power Analyzer and the ACR Smart Reader measurement results are shown in the Attachment.

Measurement Summary

The water flow of the chiller system is constant. The plant internal ambient temperature varies between 25 and 26 degrees Celsius. The electricity consumption of the chiller system is not weather or seasonal dependent.

The pre-project production during the measurement period from September 11, 2013 to September 30, 2013 was 2,311,355 lbs of building materials. The average daily production was 115,568 lbs/day.

The post-project production during the measurement period from October 30, 2013 to November 14, 2013 was 2,547,822 lbs of building materials. The average daily production was 159,239 lbs/day. The post project production was about 138% of the base Case production.

The Base Case, Post Project Measurement and Saving Summaries are shown in the tables below.

Base Case

	Chiller # 1	Chiller # 2	Chiller # 3	Chiller # 4	Total
Coincident Max hourly kW	83	164	159	164	571
Peak Hour kW occurred on 11/9/2013 Hr 16 to Hr17					
Non-coincident Max hourly kW	159	164	159	164	647
Average kW	107	147	37	113	405
Load Factor	67%	90%	23%	69%	63%
Annual kWh	937,783	1,290,794	326,890	990,497	3,545,963

Post Project

	Chiller # 1	Chiller # 2	Chiller # 3	Chiller # 4	Total
Coincident Max hourly kW	145	138	62	140	485
Peak Hour kW occurred on 31/10/2013 Hr 13 to Hr 14					
Non-coincident Max hourly kW	148	141	69	145	503
Average kW	98	132	37	119	386
Load Factor	66%	94%	53%	82%	77%
Annual kWh	855,861	1,156,916	325,301	1,046,128	3,384,200

Savings		%	Incentive
Peak Demand kW	86	15.1%	\$68,762
Annual kWh	161,764	4.6%	\$16,176

Eligible Incentive (Subject to a cap at 50% of project cost)	\$68,762
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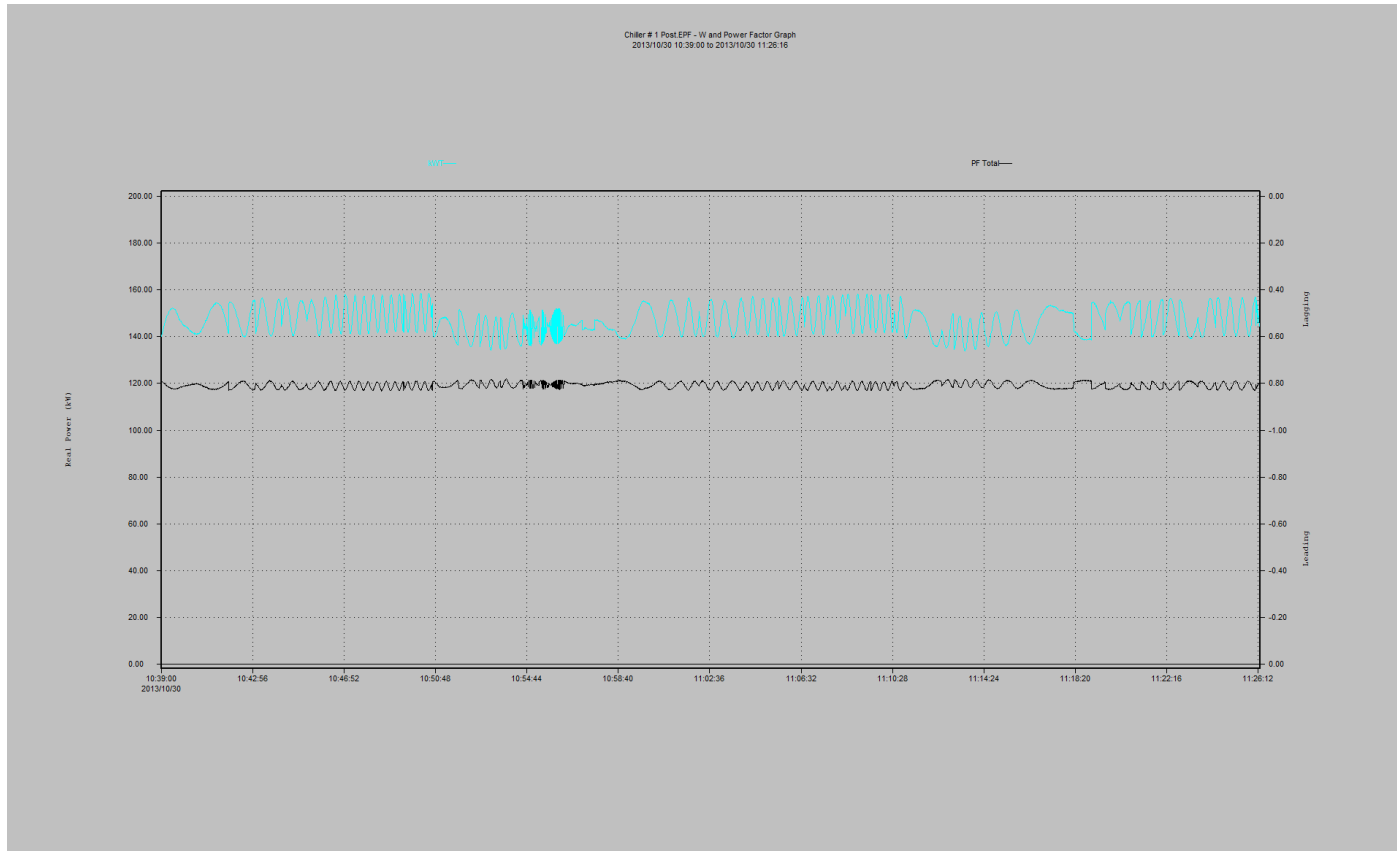
The Demand and Annual Energy savings are 86 kW and 161,764 kWh respectively. The eligible incentive for the SaveOnenergy Retrofit Program is \$68,762 subject to a cap at 50% of the project cost.

Yours truly,



Lawrence Wu, P. Eng., CMVP
 Certified Energy Auditor
 Stratadyne Group Inc.

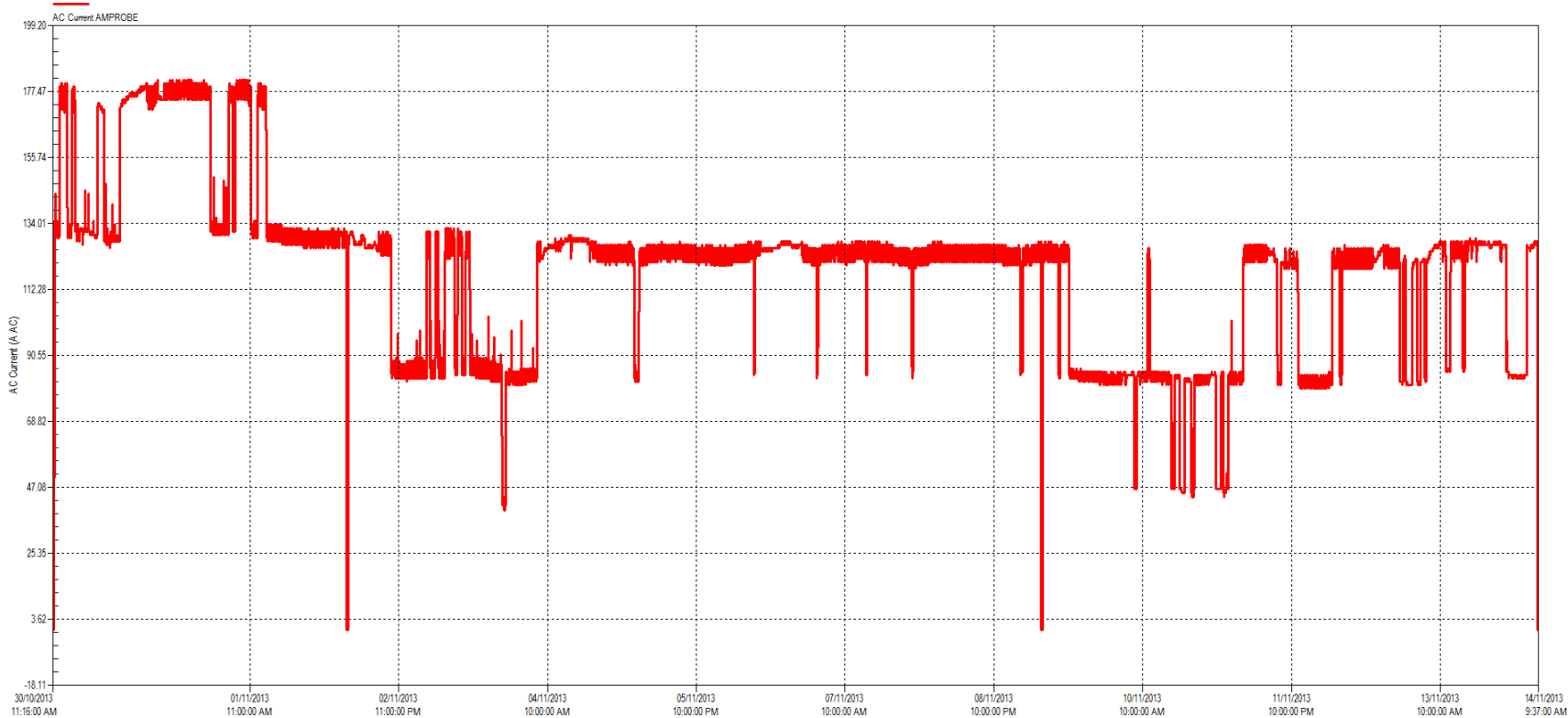
Attachment – Post Project Measurement Results



Voltage	590
Current	178
Power Factor	0.809
kW	147
Chiller temp degree F	51

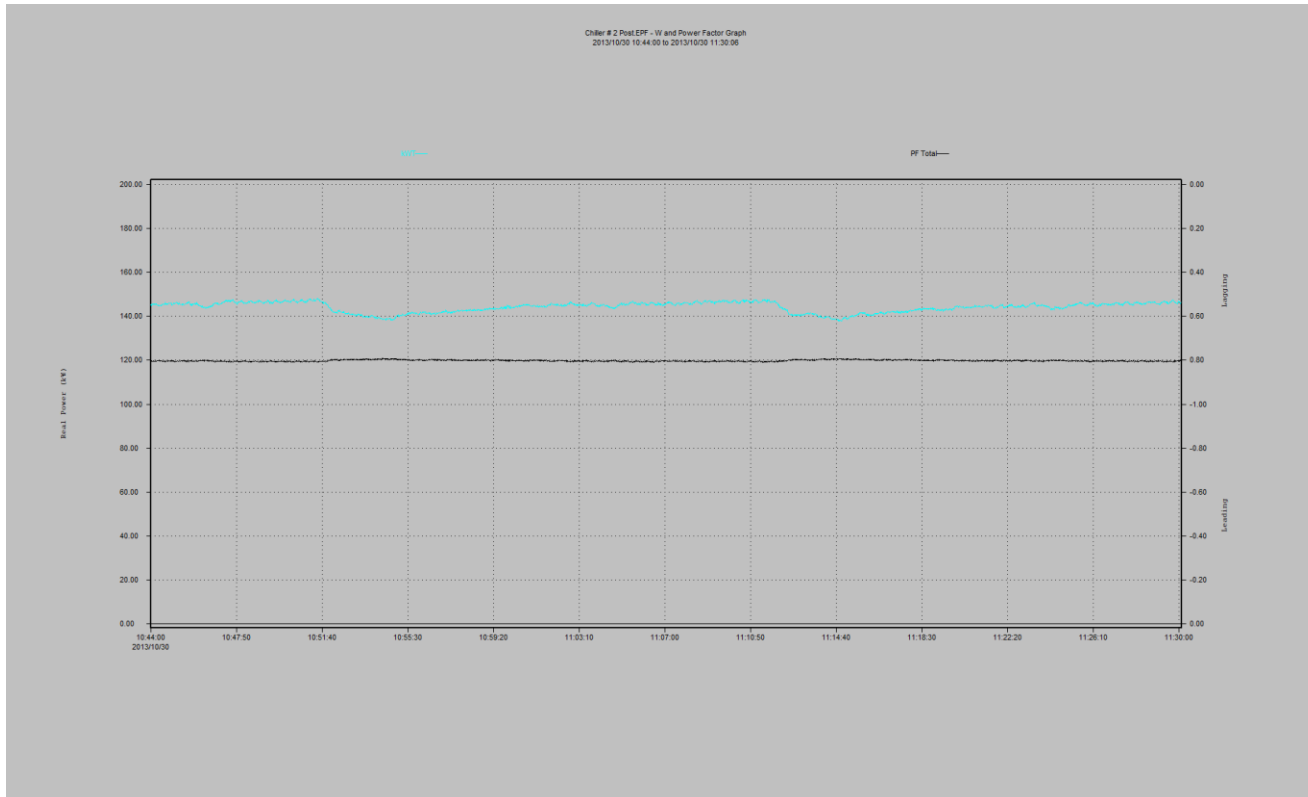
Figure 1 – Chiller # 1 Input Power Measurement on 2013/10/30 10:39 to 11:26

Chiller # 1 51 F - AC Current
76080 SR-3 - AC Current (2013-11-14 9:36:44)



Max 60 min kW	147.9
Average kW	97.7
Load Factor	66%

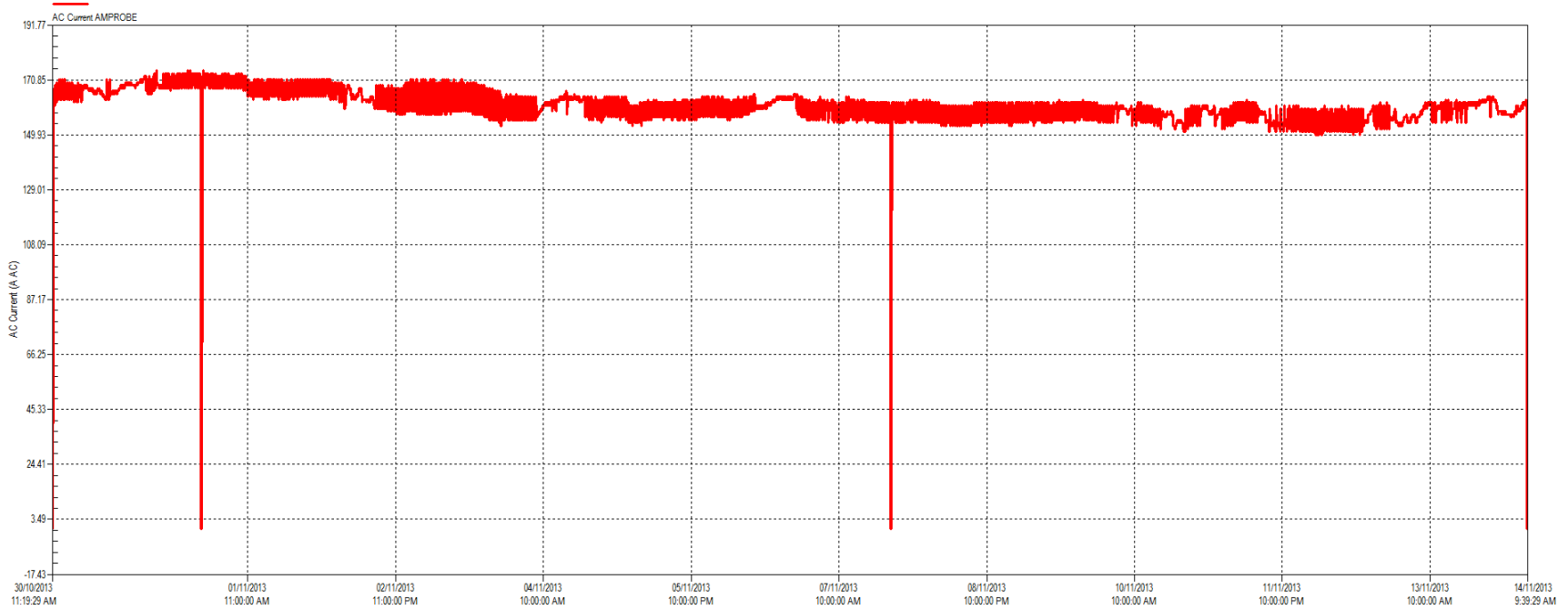
Figure 2- Chiller # 1 Load Profile from 10/30/2013 to 11/14/2013



Voltage	591
Current	176
Power Factor	0.802
kW	144
Chiller temp degree F	50

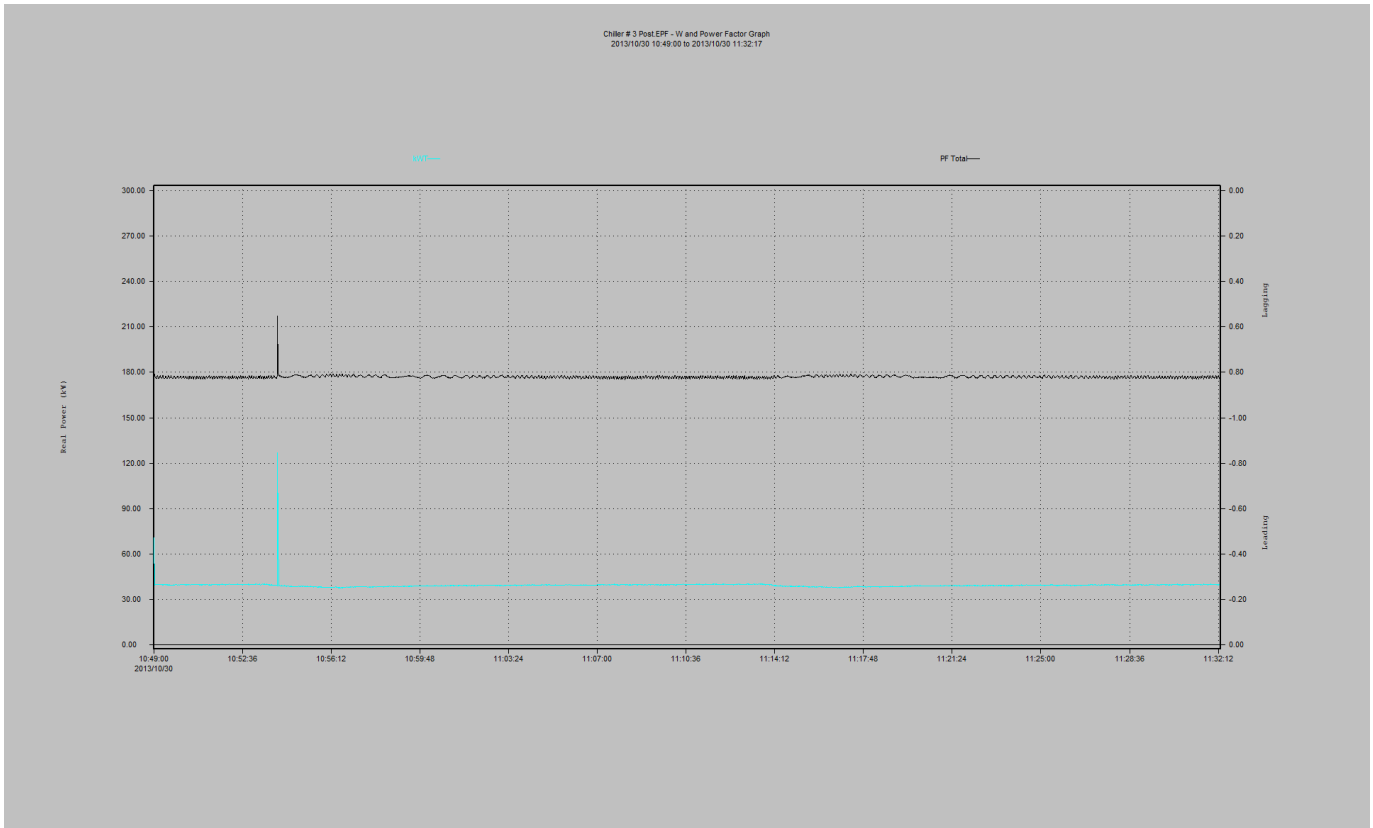
Figure 3 – Chiller # 2 Input Power Measurement on 2013/10/30 10:44 to 11:30

Chiller # 2 51 F- AC Current
 76081 SR-3 - AC Current (2013-11-14 9:39:54)



Max 60 Min kW	140.7
Average kW	132.1
Load Factor	94%

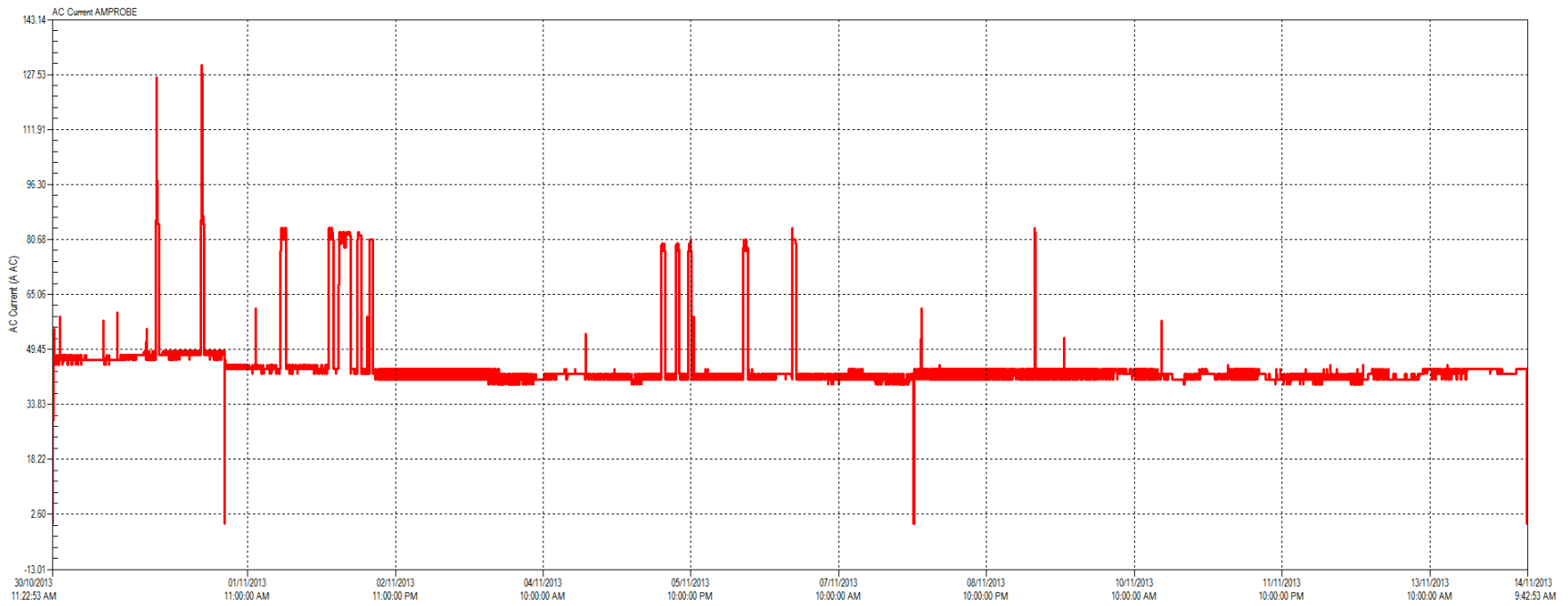
Figure 4- Chiller # 2 Load Profile from 10/30/2013 to 11/14/2013



Voltage	591
Current	47
Power Factor	0.821
kW	39
Chiller temp degree F	49

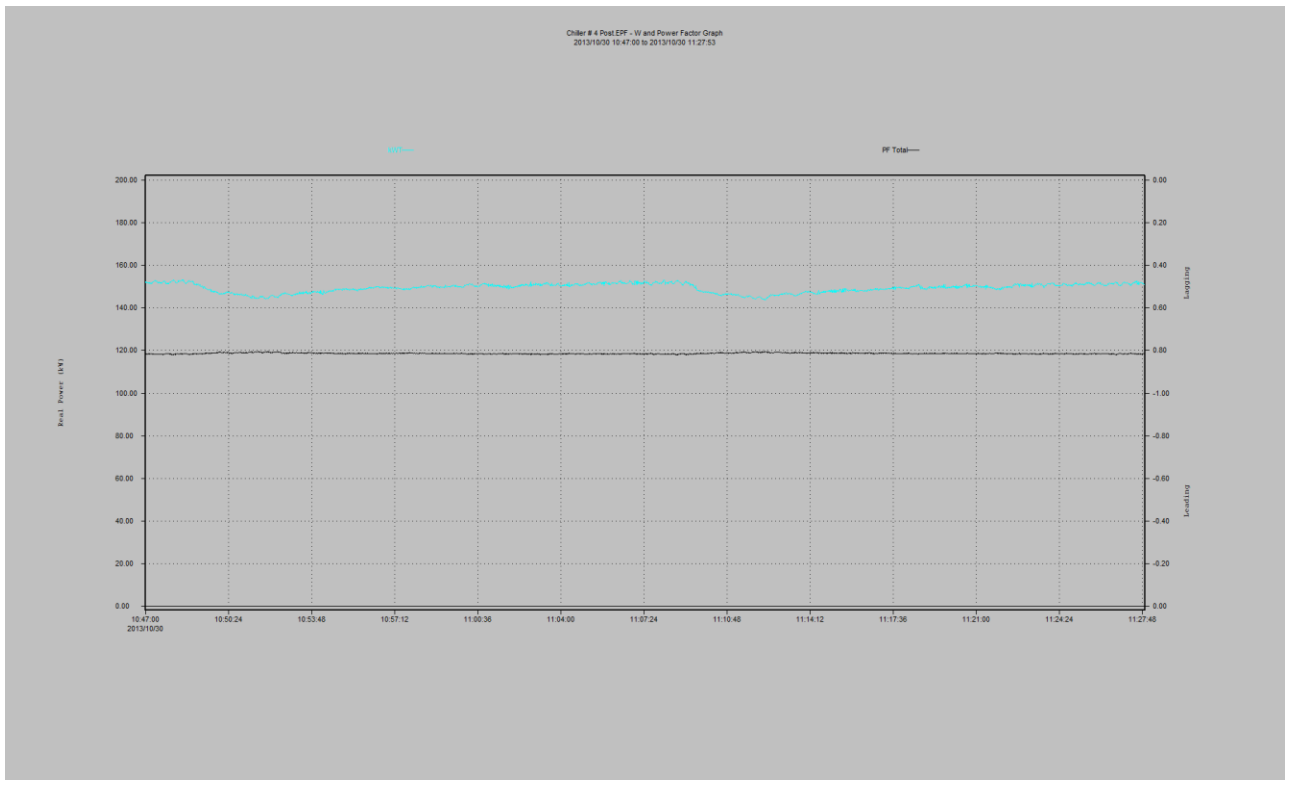
Figure 5 – Chiller # 3 Input Power Measurement on 2013/10/30 10:49 to 11:32

Chiller # 3 49 F - AC Current
 76079 SR-3 - AC Current (2013-11-14 9:42:47)



Max 60 min kW	69.5
Average kW	37.1
Load Factor	53%

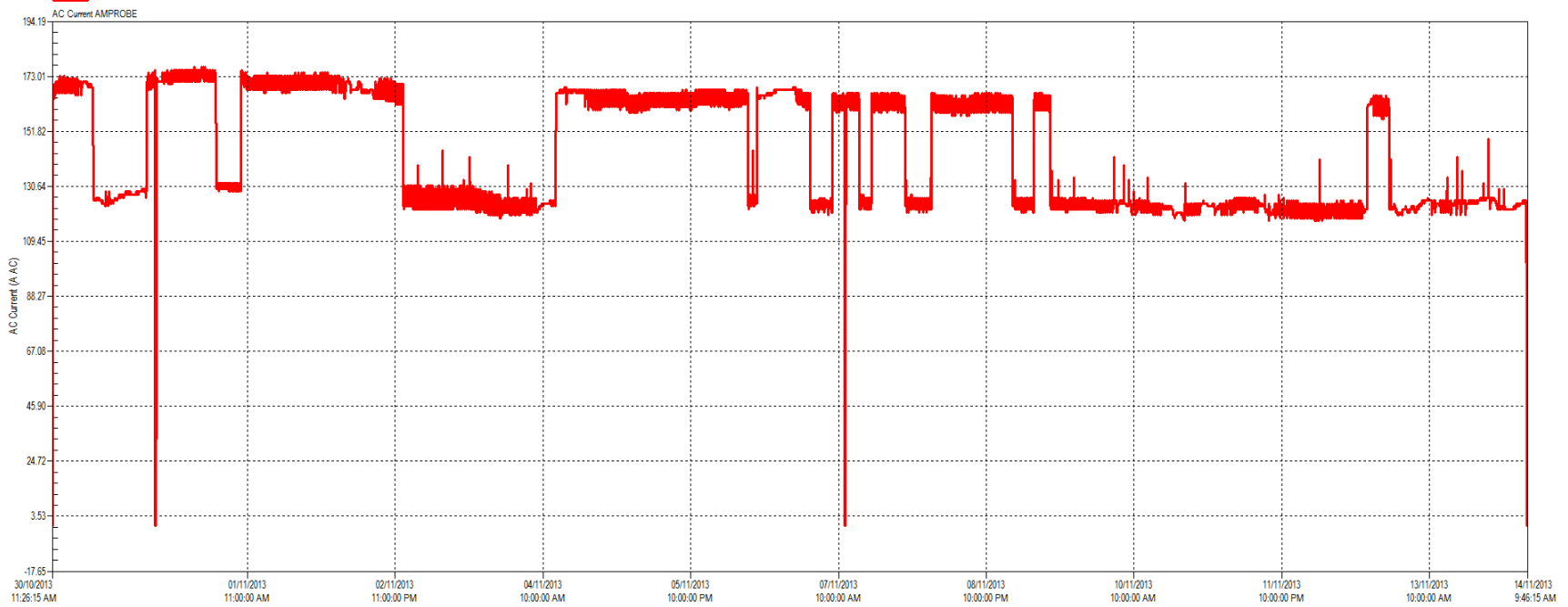
Figure 6- Chiller # 3 Load Profile from 10/30/2013 to 11/14/2013



Voltage	590
Current	180
Power Factor	0.814
kW	149
Chiller temp degree F	52

Figure 7 – Chiller # 4 Input Power Measurement on 2013/10/30 10:47 to 11:27

Chiller #4 51 F - AC Current
 75879 SR-3 - AC Current (2013-11-14 9:46:16)



Max 60 min kW	144.9
Average kW	119.4
Load Factor	82%

Figure 8- Chiller # 4 Load Profile from 10/30/2013 to 11/14/2013

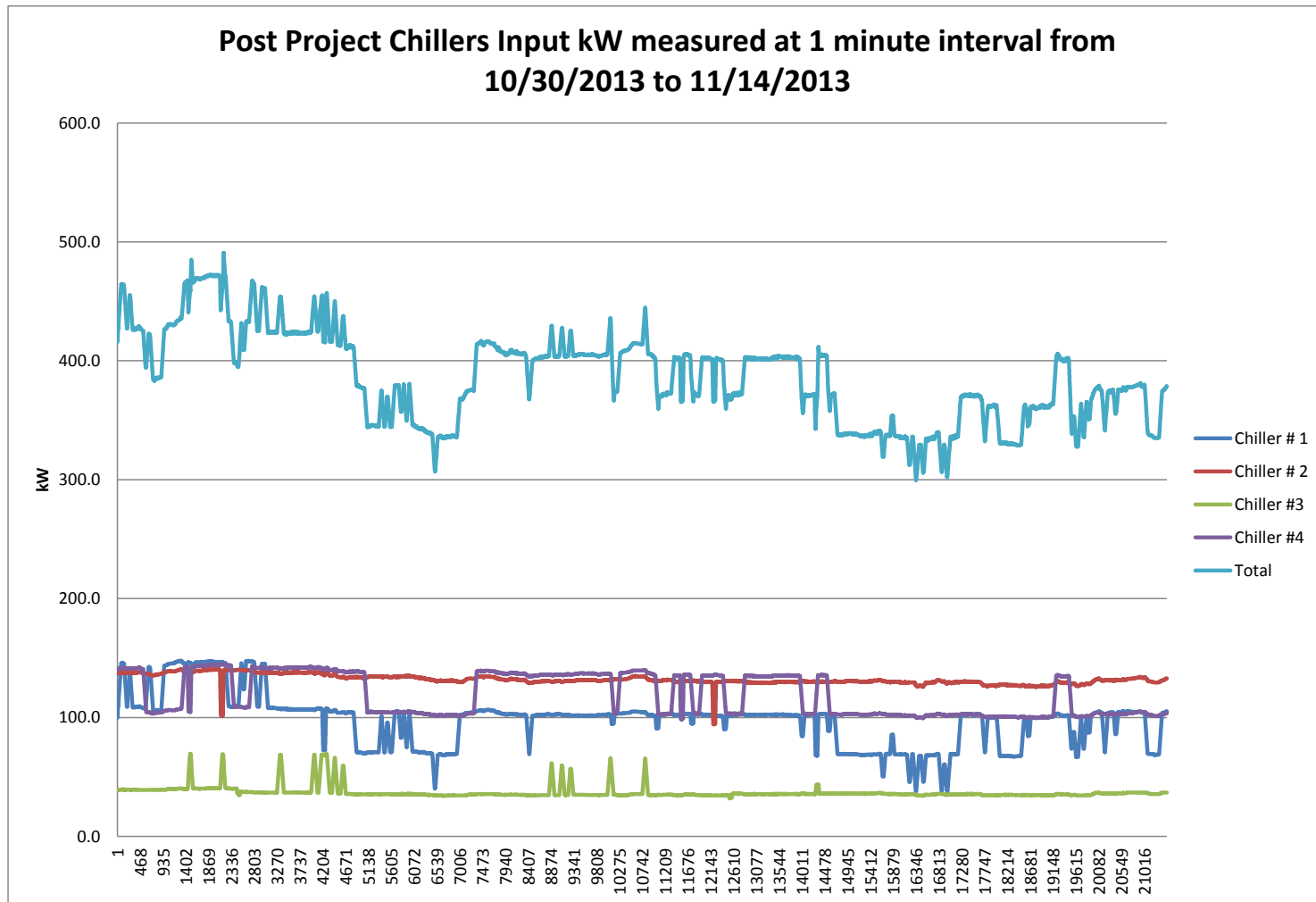


Figure 9 – Input kW of the 4 chillers measured at 1 minute intervals from 10/30/2013 12:37 to 11/14/2013 9:33