CITY OF BURLINGTON

CIRCUIT LEVEL SUB METERING

TOM PEDLAR – ENERGY COORDINATOR, CITY OF BURLINGTON

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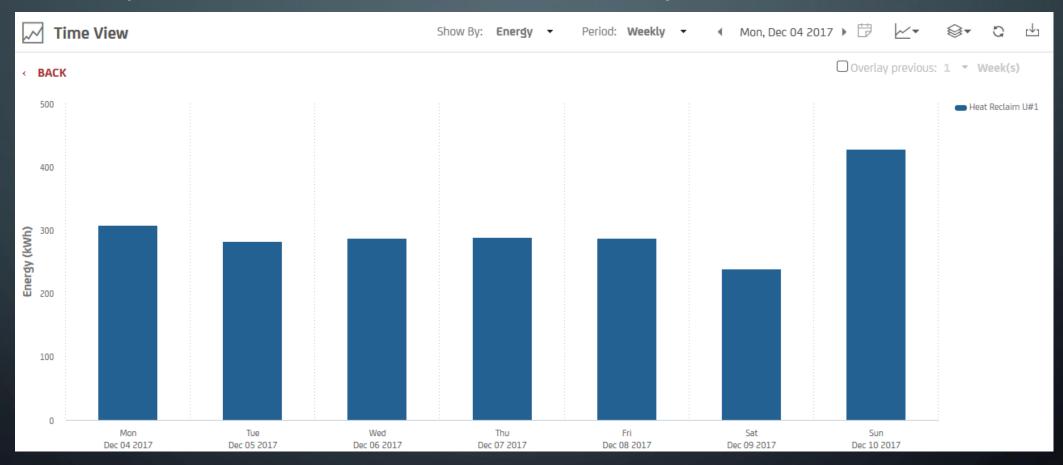
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SYSTEM INFO

Panoramic Power System

- Electricity monitoring only Natural Gas and Water are on the way!
- Installed at three highest electricity use city facilities.
 - Tansley Woods Community Cente, Appleby Ice Centre, Mainway Rec Centre.
- Purchased through Renteknik.
- Enrolled all three facilities in the Measurement and Targeting incentive program. Still underway with applications
- Three additional pool facilities to be installed in April.

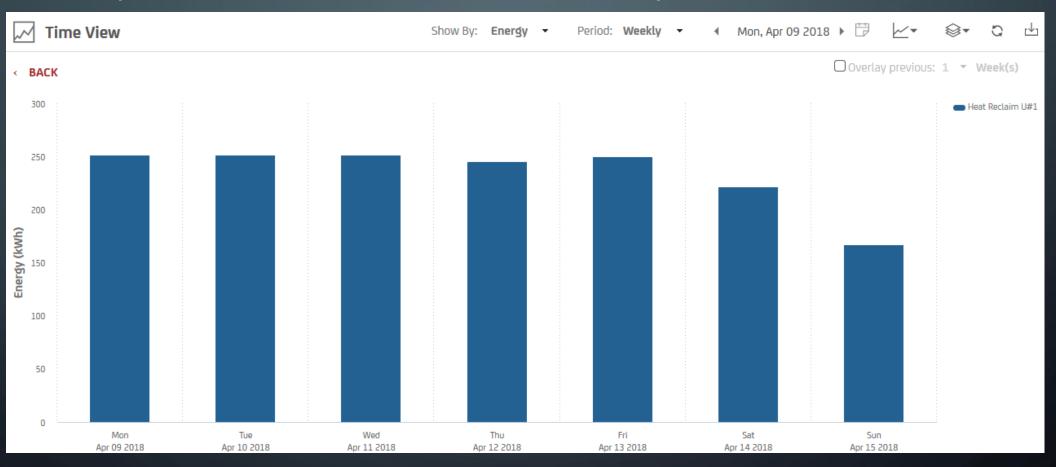
• Gives operations staff real time results for small changes



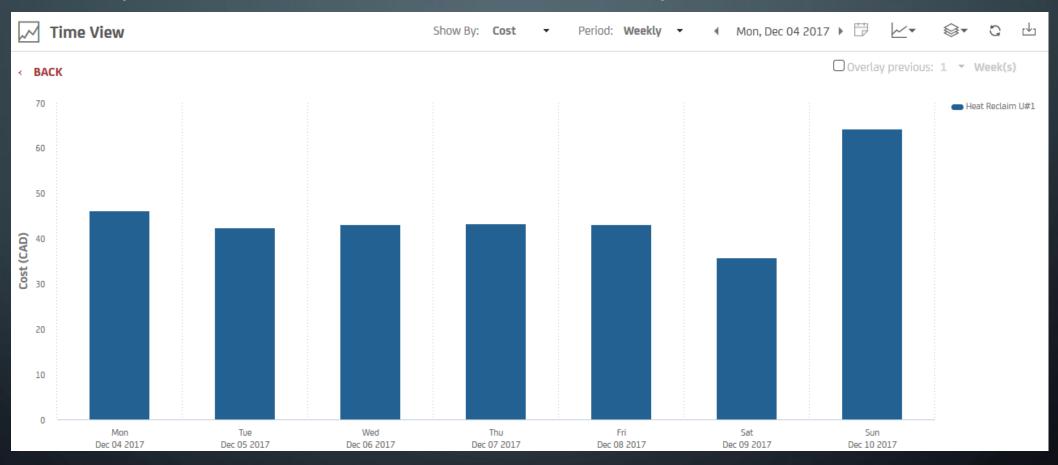
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• Gives operations staff real time results for small changes



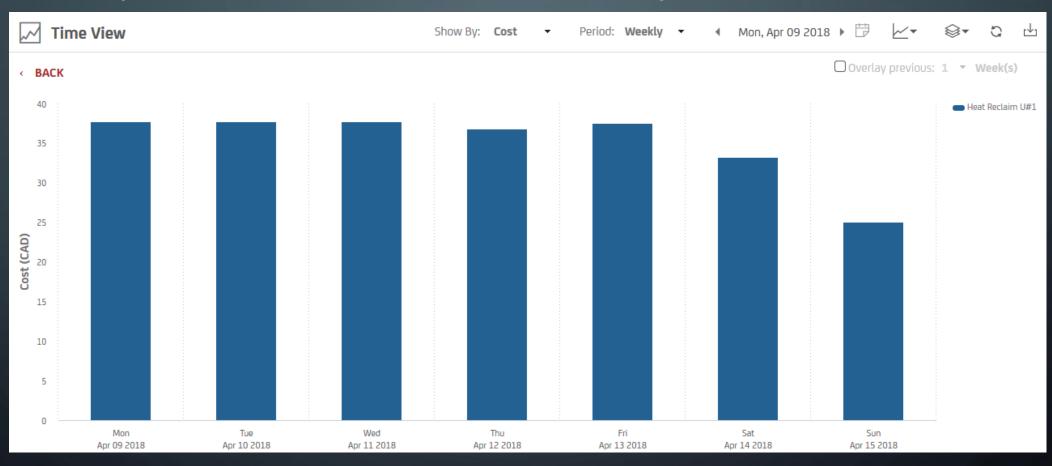
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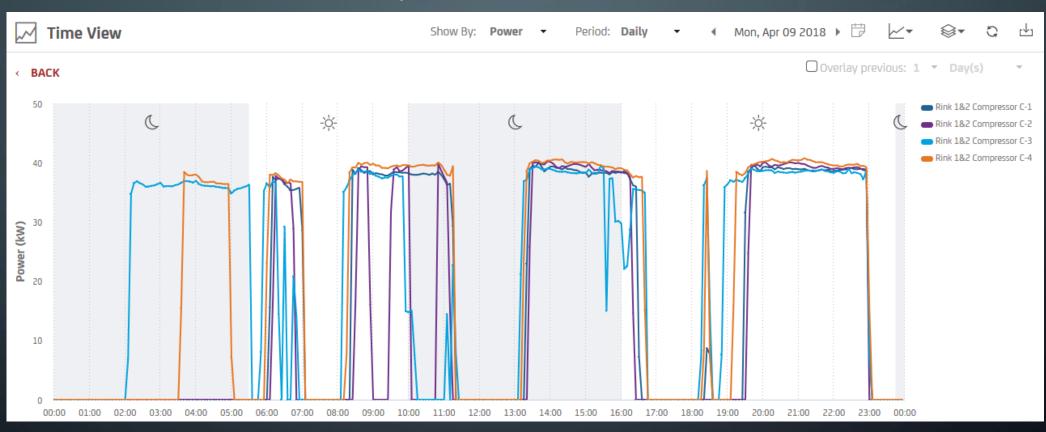
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• Gives operations staff real time results for small changes



• Identified errors in automation systems



• Automated Reporting and Email and Text Alarms.

			New Rule		×
ť			∲ Power & current rule		For site: Mainway Arena
Q	City of Burlington		Power of 💌 Specific Device/s 1 device 💌 is Above 💌 8 🔄 WW		•
ep	Mainway Arena		Duration 👻 for r	nore than <u>1</u> hours and <u>0</u> minutes	• ×
ц	04 Apr 2018 - 10 Apr 2018		Schedule during	Schedule during site's off hours 💌	
λ					
Weekly Energy Report	1	Panoramic Power	Status: C Enable		
Ъ	Real Mark		Severity:	① Medium 🗸	
ш	1.3.1		Email notification:	Tom Pedlar × Type user name, Email or select from list ('+')	+
_ S					
ě	•		Push notification:		+
Ve		City of Burlington	Commont		
5			Comment:		
					CANCEL
	Pennsylvania	Monthly Energy Usage Report - Multi-Site			
	Report Produced by Panoramic Power ®				
		March-2018			
		Panoramic Power © Copyright © 2015 Panoramic Power Ltd. All rights reserved.			
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		Panoramic Power @ Copyright © 2015 Panoramic Power Ltd. All rights reserved.			

<u>COSTS</u>

- Tansley Woods Community Centre
 - 38 Sensors, 4 Bridges
 - Cost of Equipment, Install and Setup \$10,103 (3,700)

• Appleby Ice Centre

- 47 Sensors, 4 Bridges
- Cost of Equipment, Install and Setup \$12,368 (5,100)

• Mainway Recreation Centre

- 39 Sensors, 6 Bridges
- Cost of Equipment, Install and Setup \$11,103 (4,300)
- Collegiate Pools
 - 6 Sensors, 1 Bridge
 - Cost of Equipment, Install and Setup \$1,500 (8,00)

LESSONS LEARNED AND HELPFUL HINTS

- Don't bite off more than you can chew! M&T applications take a lot of time.
- Cost for systems will vary based on the location of your equipment.
- Bad cell signals in mechanical and electrical rooms, make provisions for wired network connections
- Panel schedules and directories are correct and exist?
- Phases balanced ?



QUESTIONSPEP

QUESTIONS ARE MY FAVORITE