

Peak Advisory Notification Service & Dashboard

Working Together to Reduce your Ontario Electricity Costs

As of January 1, 2011, Ontario Regulation 398/10 changes how Global Adjustment is charged to all consumers over five megawatts (MW). The monthly GA amounts for these customers will be based on their coincident peak demands.¹

Global Adjustment is forecast to be \$200,000/MW annually for 2011 and growing to almost \$400,000/MW by 2015², and calculated on your average load during the top 5 peak periods within a Base Period. As a result, for every 1 MW average that is either reduced or displaced during the Base Period will result in a savings of over \$200,000 annually.

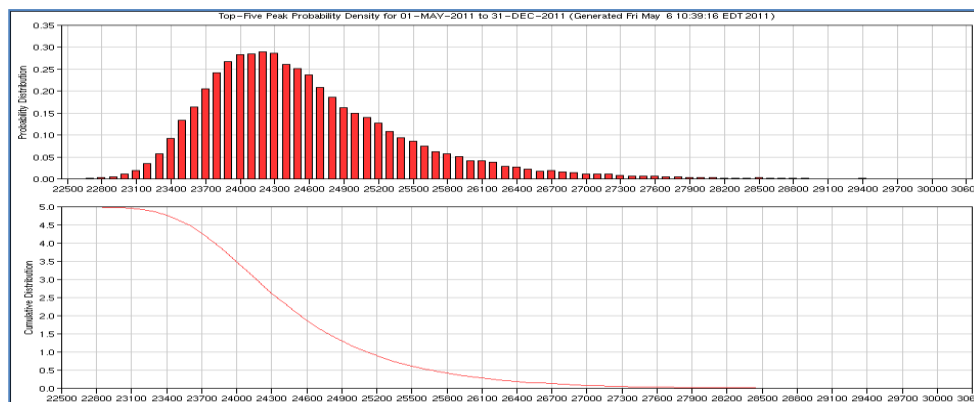
Through the NRG Matters Peak Advisory Notification Service “PANS” and the Sygration Dashboard, we will advise you when the top 5 peaks will likely occur and give you the tools to monitor and quickly detect changes in the forecast demand. Find your peace of mind knowing that you will not miss the top peaks, while not overly reacting and unnecessarily impacting your operations.

HERE IS WHAT YOU WILL RECEIVE.

1 PANS Monthly Advisories

Timeframe – Start of each Month

A detailed assessment of the month ahead, including analysis of historical time-of-month and hour-of-day data, and a risk assessment that shows the likelihood of peaks occurring during the month. The report uses a statistical analysis of the latest long-term forecast data to predict the top 5 peaks for the Base Period, and to define the alert thresholds that will be used for the daily monitoring.



¹ IESO Global Adjustment Website: http://www.ieso.ca/imoweb/b100/ga_changes.asp

² Aegent Energy Advisors: <http://www.sygration.com/OntarioElectricityTotalBillImpactAnalysisbyAegentEnergyAdvisors.pdf>

#2 PANS Day-Ahead Alerts

Timeframe – Day before period of expected Peak Hours

Email alert sent prior to the day that has hours indicating a potential peak. Three levels of risk are identified to support customers with different abilities to respond in their ability to curtail load or supplement it with standby generation.

- Slow Responding
- Moderate Responding
- Quick Responding

Analysis factors in 60 days of forecast accuracy data, to establish confidence levels in the hourly forecast. Each risk level has a different number of hours identified as being potential peak.

Forecast Type / Hour Ending (EST)	12	13	14	15	16	17	18	19	20
Original Predispatch	23660	24391	24236	24780	25087	24972	24276	23521	23280
Adjusted Predispatch	23660	24391	24236	24780	25087	24972	24276	23521	23280
Error Correction - Scenario ID	7	7	6	6	4 **	4	4	4	4
Error Correction - Mean	68	64	38	38	34	34	34	77	77
Error Correction - Std Deviation	267	220	280	280	251	251	251	380	380
Slow Responding (0.97 Confidence)	24262	24895	24834	25378	25623	25508	24812	24358	24117
Moderate Responding (0.85 Confidence)	23995	24675	24554	25098	25372	25257	24561	23978	23737
Quick Responding (0.50 Confidence)	23728	24455	24274	24818	25121	25006	24310	23598	23357

#3 PANS Current Day Alerts

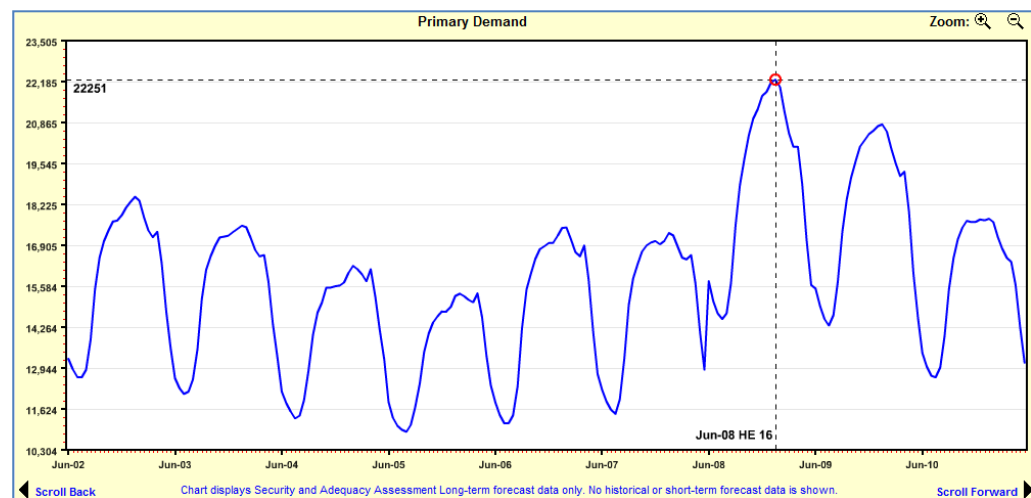
Timeframe – Morning of Day expecting Peak Hours

Same content as the Day-Ahead alert, however, email is sent in the morning of the peak day using the latest forecast analysis.

#4 Dashboard Long-term Forecast

Timeframe – Up to 14 Days Forward

Demand Data is tracked looking forward up to 14 days, allowing you to identify peak hours or if a trend of high demand is about to begin.



#5 Dashboard 24-Hour Forecast

Timeframe – Current Day and Day Ahead

Hourly forecast and historical data are shown in a convenient 24-hour matrix, with data updating automatically as it is processed by Sygration. Easily monitor and set trigger events for items such as Energy Price, Supply Cushion or Ontario Demand.

Hourly System Forecast / Prices	Current Day	Day Ahead	Day 2	DACP Predisp Prices / Adequacy / Reliability										SSR Forecast		LT Forecast		Gen Outages		PD Adequacy		PD
Hour	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20		
Predisp/Disp - Energy Price \$	39.22	17.28	14.54	14.45	13.69	27.14	34.10	40.39	41.94	44.58	63.95	187.94	165.45	107.76	57.97	238.38	205.00	220.00	88.74	88.74		
Predisp/Disp - Ontario Demand MW	14812	14140	13698	13724	14062	15162	17134	18651	19539	20305	21126	21777	22335	22663	22499	22806	22696	22450	21936	21780		
SSR - Primary Demand MW	15024	14568	14155	13877	14173	16310	17885	19279	20166	20542	21147	21366	21769	22600	22690	22806	22696	22450	21936	21780		
Predisp/Disp - Off-Market MW	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0		
SSR - Excess Energy MW	6815	6406	6758	7312	6627	4747	3732	3013	2378	2095	1733	1317	1601	1620	1191	1416	1766	2040	2342	1127		
SSR - Excess Capacity MW	8278	8489	9021	9456	8531	5947	4385	3214	2227	1851	1281	835	955	995	426	1246	1456	1629	2216	1129		
SBG - SBG Forecast MW	536	378	436	617	536	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0		
Outages - Total Change MW	367	0	-587	0	475	45	73	128	0	0	-14	-177	45	450	-580	-472	-380	0	37	-36		
ADQ - Supply Cush %	56.5	53.3	51.3	53.4	52.4	39.8	35.7	40.0	40.0	33.1	32.4	31.7	29.4	26.3	22.5	22.3	23.2	21.3	25.4	26.6		

#6 Dashboard Console

Timeframe – Current and Day Ahead

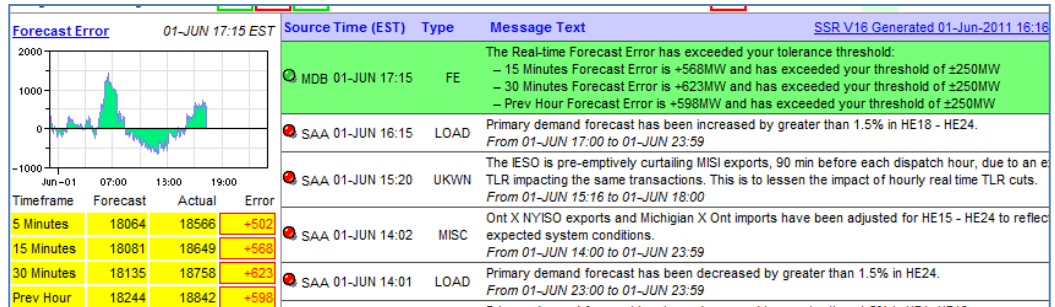
Messages that are generated automatically by the Dashboard or received from the IESO appear in the Dashboard central screen and are announced by a friendly voice. These may indicate a crossing of a threshold – such as Demand, or Price exceeding a limit – or notices that the demand forecast has changed.

Source Time (EST)	Type	Message Text	SSR V16 Generated 08-Jun-2011 14:45 Urgent	ACK
MDB 08-JUN 15:44	PD	PREDISPATCH ALERT: ADQ - Supply Cush % - Predisp/Dispatch Hour: 19 value of 25.4 is below your target of 35.6 for PD3		ACK
MDB 08-JUN 15:44	PD	PREDISPATCH ALERT: Predisp/Dispatch - Energy Price \$ - Predisp/Dispatch Hour: 19 value of 88.74 is above your target of 47.77 for PD3		ACK
MDB 08-JUN 15:44	PEAK	PEAK ALERT: ADQ - Supply Cush % - Hour:16 The forecast value of 22.3 % is below your absolute threshold of 30 % - Hour:17 The forecast value of 23.2 % is below your absolute threshold of 30 % - Hour:18 The forecast value of 21.3 % is below your absolute threshold of 30 % - Hour:19 The forecast value of 25.4 % is below your absolute threshold of 30 % - Hour:20 The forecast value of 26.6 % is below your absolute threshold of 30 % - Hour:21 The forecast value of 29.5 % is below your absolute threshold of 30 %		
SAA 08-JUN 12:09	LOAD	Primary demand forecast has been increased by greater than 1.5% in HE14- HE21. 08-JUN 12:08		ACK
SAA 08-JUN 11:54	GEN	Loss of capacity greater than 250 MW. 08-JUN 11:53		ACK
SSR 08-JUN 13:59	CIRC	With D26A and K23D O/S MPFS limited to 75 MW Impacts: MPFS - Ontario-Minnesota Transfer South 08-JUN 13:57		

#7 Dashboard Forecast Error Tracking

Timeframe – Current Day

Curtailment actions are taken by industrial consumers in response to high forecast demand. So when the demand arrives significantly different (high, lower, earlier, or later) than expected it is important to know right away. The Dashboard Forecast Error tracking module calculates a 5-minute forecast and compares the actual demand against it in real-time. It can also generate Console alerts if the actual demand is significantly off the forecast – quickly indicating if a peak hour has shifted.



When you add it all up it means savings to your operations.

Once you use it you'll wonder how you operated without it!

Call us today to discuss the Ontario Global Adjustment Allocation Program, available to all Consumers over 5MW. We can schedule a demonstration and show how the PANS and Dashboard solution can help your business.

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