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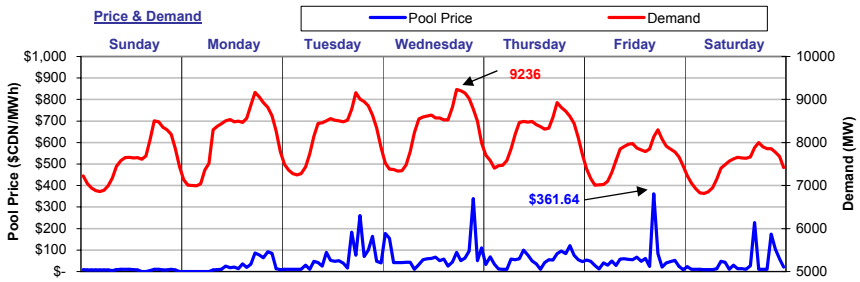
The Market Monitor

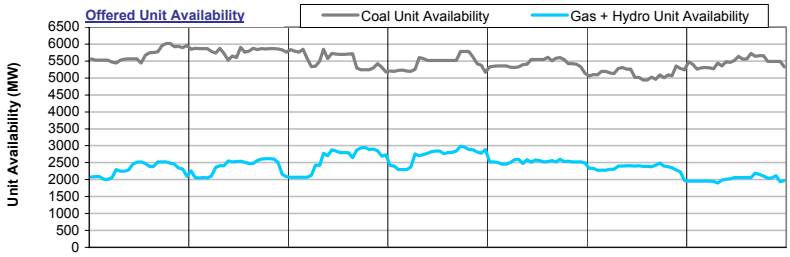
WATCHING THE MARKET : your fact source

Week Ending December 25, 2004

Weekly Highlights

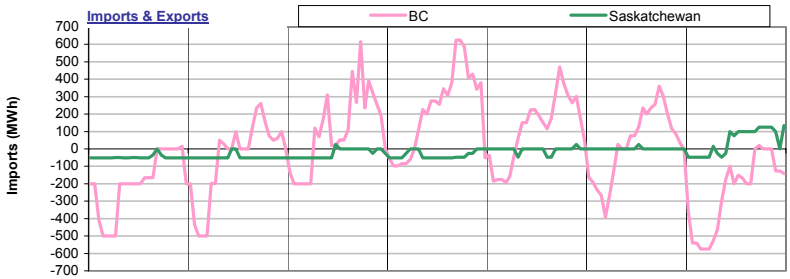


For the week ending **December 25, 2004**, **Pool Price** averaged **$45.35/MWh** and ranged from a minimum of **$0/MWh** in **HE06** on **Monday** to a maximum of **$361.64/MWh** in **HE17** on **Friday**.
Demand reached a high of **9236 MW** in **HE18** on **Wednesday** and a low of **6817 MW** in **HE05** on **Saturday**.
Average demand for the week was **7943MW**.
Pool Price and **Demand** were **positively** correlated last week with an R-squared value of **0.16**.

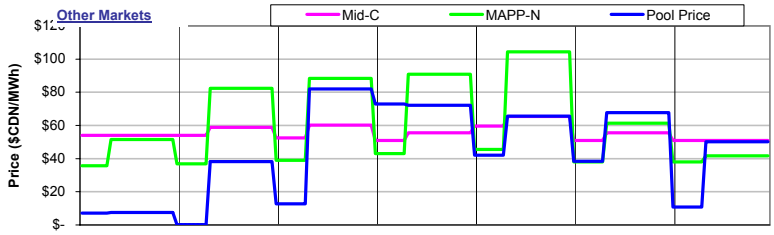


Coal Unit Availability averaged **5500 MW** last week. This is an equivalent availability of **92%** (based on MCR).
Gas and Hydro Unit Availability averaged **2412MW** last week, which is an equivalent of **43%** (based on MCR).

Availability numbers are based on MW offered into the energy merit order.

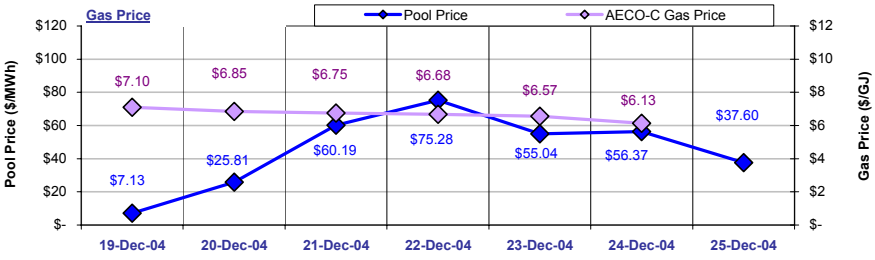


Alberta was a net **exporter to BC** last week with total **exports** equal to **826MWh.**
Alberta was a net **exporter to Saskatchewan** last week with total **exports** equal to **2,781MWh**.
Overall, Alberta **exported 3,607MWh** of electricity last week.



Pool Prices were generally **lower** than prices in **Mid-C** and **lower** than prices in **MAPP-N** last week.
Mid-C prices averaged **$57.73/MWh** on-peak and **$53.27/MWh** off-peak.
MAPP-N prices averaged **$78.20/MWh** on-peak and **$39.44/MWh** off-peak.

Prices in $CDN at an exchange rate of **1.2283**



The average **AECO-C Gas Price** last week was **$6.68/GJ** and ranged from a minimum of **$6.13/GJ** to **$7.10/GJ**.
Prevailing gas prices resulted in market heat rates ranging from a low of **1.00GJ/MWh** to a high of **11.26GJ/MWh**
The average market heat rate for the week was **7.09GJ/MWh**.

MARKET SURVEILLANCE ADMINISTRATOR

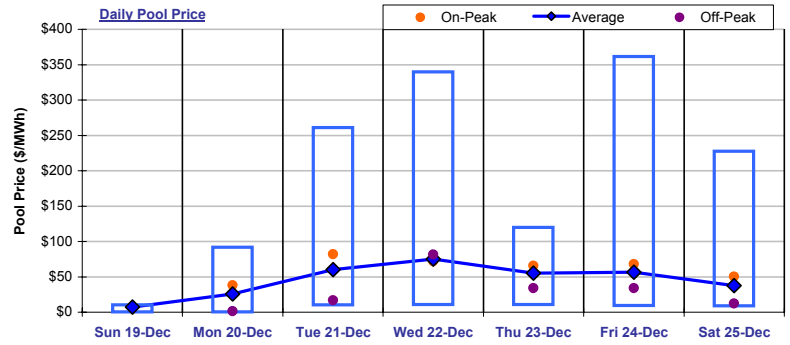
Alberta's **Market Surveillance Administrator** is in place to monitor the fair, efficient and openly competitive operation of all electricity markets within the province. The **Market Monitor** is a weekly publication by the MSA intended to educate industry participants and the public on market activities for the previous week. Any questions regarding the material in this publication should be directed to MSA staff. Our contact information is available on the MSA website: **www.albertamsa.ca**

Wholesale Market

Weekly Market Statistics

	Sunday 19-Dec	Monday 20-Dec	Tuesday 21-Dec	Wednesday 22-Dec	Thursday 23-Dec	Friday 24-Dec	Saturday 25-Dec	Average	Last Week	% Change	YTD
Pool Price											
Average	$ 7.13	$ 25.81	$ 60.19	$ 75.28	$ 55.04	$ 56.37	$ 37.60	*$ 45.35*	*$ 56.70*	*-20.0%*	*$ 54.74*
On-Peak	NA	$ 38.10	$ 81.91	$ 72.13	$ 65.53	$ 67.67	$ 50.21	*$ 62.59*	*$ 56.61*	*10.6%*	*$ 64.52*
Off-Peak	$ 7.13	$ 1.22	$ 16.75	$ 81.58	$ 34.06	$ 33.75	$ 12.37	*$ 22.35*	*$ 56.82*	*-60.7%*	*$ 38.52*
COV	0.43	1.20	1.04	0.90	0.53	1.20	1.48	*0.97*	*1.09*	*-10.9%*	
Demand											
Average	7,589	8,156	8,231	8,324	8,189	7,659	7,451	*7,943*	*7,873*	*0.9%*	*7,435*
Minimum	6,858	6,996	7,250	7,336	7,400	7,012	6,817	*7,096*	*6,936*	*2.3%*	*6,017*
Maximum	8,506	9,164	9,160	*9,236*	8,930	8,293	7,996	*8,755*	*8,766*	*-0.1%*	*9,236*
Coal Unit Availability											
Average	5,685	5,805	5,537	5,447	5,427	5,128	5,470	*5,500*	*5,228*		*4,900*
Utilization	96%	98%	93%	92%	91%	86%	92%	*93%*	*88%*	*4.6%*	*82%*
Gas and Hydro Unit Availability											
Average	2,309	2,380	2,598	2,707	2,532	2,342	2,019	*2,412*	*2,461*		*2,342*
Utilization	48%	50%	55%	57%	53%	49%	42%	*43%*	*44%*	*-0.9%*	*41%*

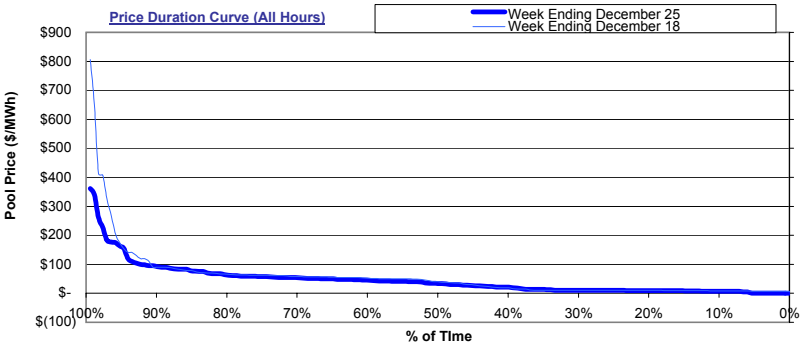
Daily Pool Price



The Daily Pool Price graph plots the daily range in hourly Pool price (defined by the blue box) along with the daily average and daily on and off-peak prices. The **on-peak Pool price** for the week was **$62.59/MWh** while the **off-peak Pool price** for the week was **$22.35/MWh**.

Note: Sundays and most statutory holidays are defined as off-peak.

Price Duration Curve (All Hours)

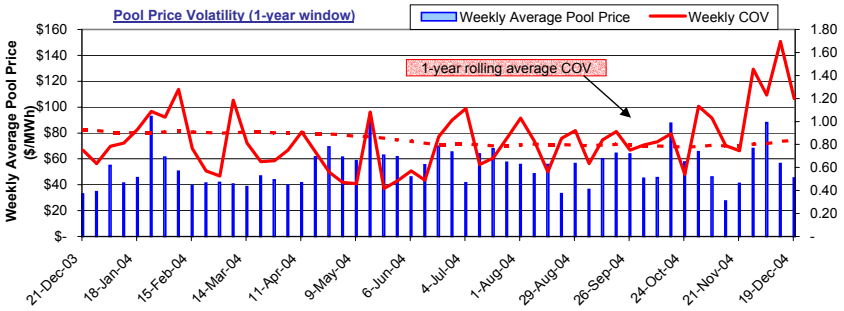


The price duration curves show the % of time that prices were at or below a certain value during the week.

For the week ending **December 25**, prices were at or below:

$20/MWh	**39%** of the time
$50/MWh	**65%** of the time
$100/MWh	**92%** of the time
$250/MWh	**98%** of the time
$500/MWh	**100%** of the time

Pool Price Volatility (1-year window)



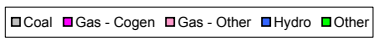
The chart plots average weekly **Pool Price** and the **Coefficient of Variation** (COV) of hourly Pool prices for the week. The COV is a standard statistical measure of volatility.

Pool price volatility **decreased** for the week ending **December 25** from the previous week.

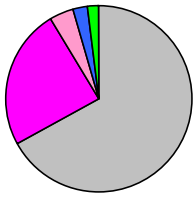
Pool price volatility also moved **above** the 1-year rolling average COV value.

Market Share Statistics

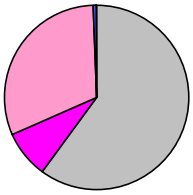
By Fuel Type:



Weekly Generation by Fuel Type

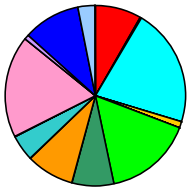


Weekly Price Setting by Fuel Type



By Submitting Customer:

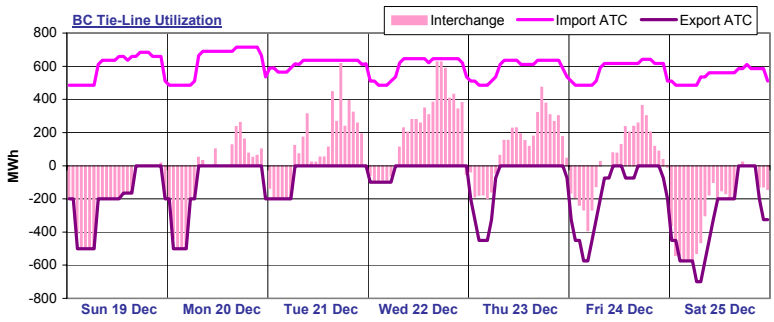
Weekly Price Setting by Submitting Customer



Last week, coal units were responsible for **66.8%** of the generation in the province and set price **60.0%** of the time. Gas-cogen units accounted for **24.6%** of the generation and set price **8.4%** of the time last week while other gas units made up **4.0%** of generation and set price **30.8%** of the time.

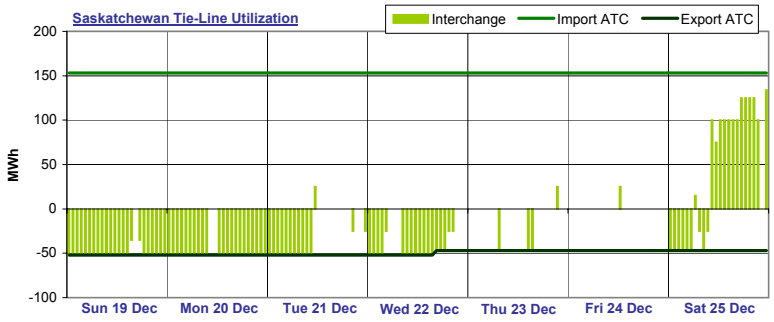
A total of **14** market participants set price last week. **1** market participants set price more than 20% of the time last week. The top price setter set price **21.0%** of the time and the top five price setters set price a total of **74.2%** of the time.

Interties

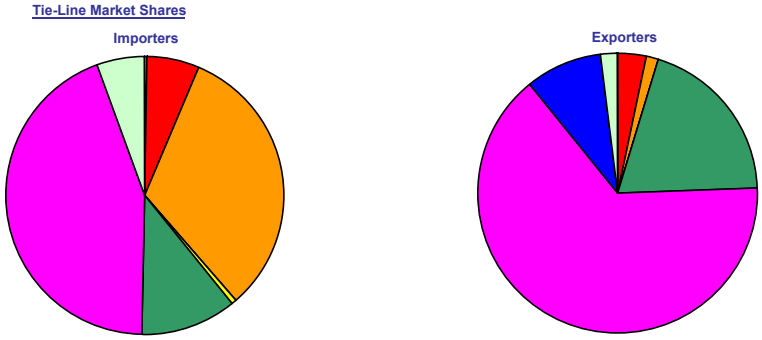


BC import capacity was **16%** utilized last week while **BC export capacity** was **70%** utilized. Energy was being imported into Alberta over the BC tie-line **46%** of the time and exported out of Alberta over the BC tie-line **42%** of the time last week. There was no activity on the BC tie-line **11%** of the time last week.

Note: External reserve contract volumes have been subtracted from the BC import ATC as this capacity is not available to import energy into Alberta.



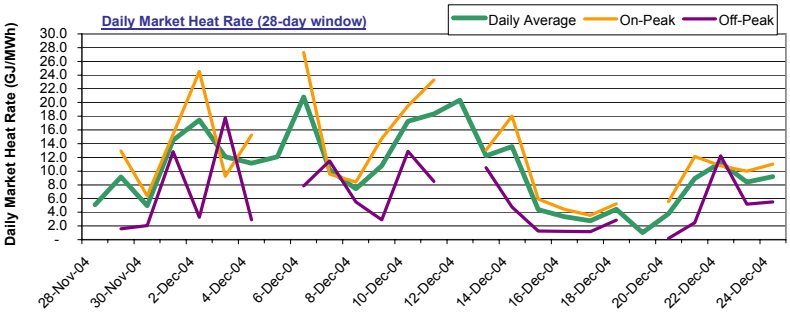
Saskatchewan import capacity was **6%** utilized last week while **Saskatchewan export capacity** was **50%** utilized. Energy was being imported into Alberta over the Saskatchewan tie-line **10%** of the time and exported out of Alberta over the Saskatchewan tie-line **52%** of the time last week. There was no activity on the Saskatchewan tie-line **38%** of the time last week.



Last week, there were a total of **7** importers. The most active importer had a market share of **44.1%** while the second most active importer had a market share of **32.2%**. There were a total of **6** exporters last week. The most active exporter had a market share of **64.8%** while the next largest exporter had a market share of **19.8%**.

Note: Market shares are based on the combined activity on both interties.

Market Heat Rates



Over the past 28 days, the daily **Market Heat Rate** averaged **10.2 GJ/Mwh** and ranged from a low of **1.0 GJ/MWh** to a high of **20.8 GJ/MWh**.
The daily **On-Peak Market Heat Rate** for the last 28 days averaged **12.4 GJ/MWh** while the daily **Off-Peak Market Heat Rate** averaged **5.9 GJ/MWh**.

Sparkspreads

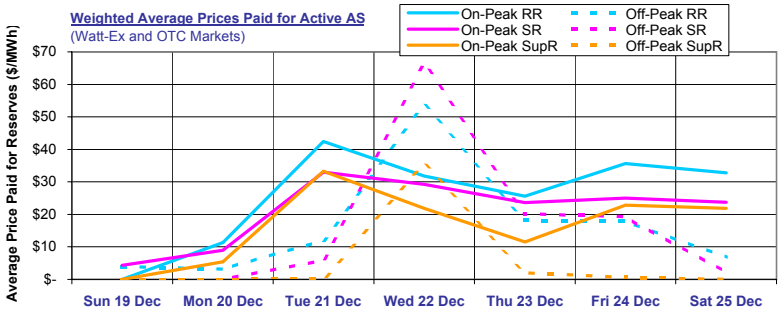
	AECO-C	Daily Average			On-Peak			Off-Peak		
	Gas Price	Pool Price	Sparkspread ($/MWh)		Pool Price	Sparkspread ($/MWh)		Pool Price	Sparkspread ($/MWh)	
Date	($/GJ)	($/MWh)	HR=7.5	HR=10.0	($/MWh)	HR=7.5	HR=10.0	($/MWh)	HR=7.5	HR=10.0
Sun 19 Dec	$ 7.10	$ 7.13	(46.12)	(63.88)	NA	NA	NA	$ 7.13	(46.12)	(63.88)
Mon 20 Dec	$ 6.85	$ 25.81	(25.58)	(42.72)	$ 38.10	(13.29)	(30.42)	$ 1.22	(50.17)	(67.30)
Tue 21 Dec	$ 6.75	$ 60.19	9.53	(7.36)	$ 81.91	31.25	14.36	$ 16.75	(33.91)	(50.80)
Wed 22 Dec	$ 6.68	$ 75.28	25.15	8.43	$ 72.13	22.00	5.29	$ 81.58	31.44	14.73
Thu 23 Dec	$ 6.57	$ 55.04	5.78	(10.64)	$ 65.53	16.27	(0.15)	$ 34.06	(15.20)	(31.62)
Fri 24 Dec	$ 6.13	$ 56.37	10.36	(4.98)	$ 67.67	21.66	6.33	$ 33.75	(12.26)	(27.59)
Sat 25 Dec	na	$ 37.60	na	na	$ 50.21	na	na	$ 12.37	na	na

Daily average sparkspreads last week were **mostly positive** for a heat rate of 7.5 GJ/MWh and **mostly negative** for a heat rate of 10.0 GJ/MWh.

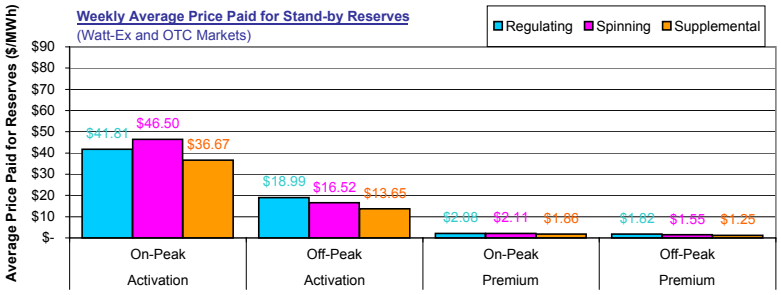
On-peak sparkspreads last week were **mostly positive** for a heat rate of 7.5 GJ/MWh and **mostly positive** for a heat rate of 10.0 GJ/MWh.

Off-peak sparkspreads last week were **mostly negative** for a heat rate of 7.5 GJ/MWh and **mostly negative** for a heat rate of 10.0 GJ/MWh.

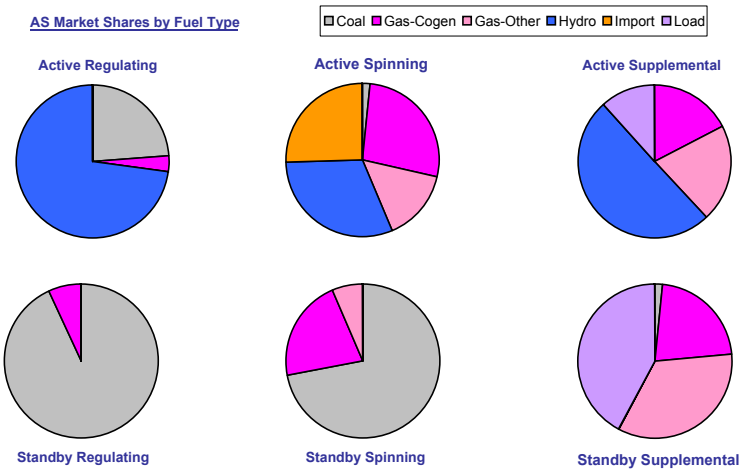
Ancillary Services Market



Average on-peak prices paid for active ancillary services last week were **$28.85/MWh**, **$7.05/MWh** and **$0.00/MWh** respectively for active regulating, spinning and supplemental reserves.
Active average off-peak prices were somewhat **higher** and averaged **$55.30/MWh**, **$46.01/MWh** and **$0.00**/MWh for active regulating, spinning and supplemental reserves respectively.



Weekly average activation prices for stand-by reserves ranged from **$13.65/MWh** for **off-peak supplemental** reserves to **$46.50/MWh** for **on-peak spinning** reserves.
Weekly average premium prices ranged from **$1.25/MWh** for **off-peak supplemental** reserves up to **$2.11/MWh** for **on-peak spinning** reserves.



Last week **hydro** units had the largest market share in the active regulating reserve market with **72.7%**. In the active spinning reserve market, **hydro** units had the leading market share with **30.9%** while in the active supplemental reserve market, **hydro** units had the leading share with a **50.4%** market share.

Coal units dominated the standby regulating reserve market with a **93.0%** market share. Leading market share in the standby spinning market was held by **Coal** units with a **72.0%** market share. In the standby supplemental reserve market, **Load** units had the leading market share with **42.2%**,

Glossary

HE	Hour Ending
On-Peak Hours	In Alberta: HE08 through HE23, Monday through Saturday (prevailing Mountain time) In Mid-C: HE07 through HE22, Monday through Saturday (prevailing Pacific time) In MAPP-N: HE08 through HE23, Monday through Sunday (prevailing Central time)
Off-Peak Hours	In Alberta: HE01 through HE07 + HE24 (of the same day), Monday through Saturday + HE01 through HE24 Sundays + holidays (prevailing Mountian time) In Mid-C: HE24 (of the previous day) through HE07 (of the day in question), Monday through Saturday + HE01 through HE24 Sundays + holidays (prevailing Pacific time) In MAPP-N: HE24 (of the previous day) through HE07 (of the day in question), Monday through Sunday (prevailing Central time)
COV	Coefficient of Variation The standard deviation of a series of numbers divided by the mean of the same series of numbers. Used as a measure of volatility.
ATC	Available Transfer Capacity A measure of the maximum energy flow possible in one direction across an intertie.
Market Heat Rate	The prevailing Pool price divided by the prevailing gas price.
Sparkspread	Sparkspreads give an indication of the revenue available to cover costs after fuel costs have been paid. A positive spread indicates it is more economical to buy gas and generate electricity while a negative spread indicates it is more economical to buy electricity from the grid.