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MSA Report

One Year On: Assessment of the Impact of the Trading Practices Guideline and Information Disclosure Procedure

15 September, 2005

Market Surveillance Administrator

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1 INTRODUCTION

The Trading Practices Guideline (TPG) was first published February 18, 2004. It states:

> *Market participants must not trade on the basis of known but not public information about the status of supply, load or transmission assets that can reasonably be expected to have a material impact on market price. Trading shall be understood to include any type of financial or physical transaction or operational strategy designed to extract value from known but not public information about the status of supply, load, or transmission assets.*

From the perspective of the TPG, an outage is deemed public once it has been submitted to the AESO pursuant to Operating Policies and Procedures 601 (OPP601), and subsequently through the AESO's Total Declared Energy (TDE) mechanism[1]. The procedure for outage notification (referred to as the Information Disclosure Procedure (IDP)) was first outlined in the TPG published February 18, 2004, and was further clarified in the MSA's Letter to Participants of December 1, 2004.

With respect to units covered by the Alberta Power Purchase Agreements (PPAs), PPA Owners are responsible for informing the PPA Buyers of an upcoming outage, and the PPA Buyer is then responsible for reporting the outage in accordance with to OPP601, and since July 4, 2005, through the AESO's Total Declared Energy (TDE) mechanism.

The MSA began actively monitoring and enforcing the Trading Practices Guideline/Information Disclosure Procedure (TPG/IDP) in July 2004. At that time, the MSA committed to market participants that it would assess the effect of these initiatives after one year. This undertaking was taken in order to identify if any unanticipated impacts were arising from the TPG/IDP mechanism. If so, the MSA would then be able to consider if any adjustments were appropriate or necessary. A one-year timeframe was chosen because, given the dynamic nature of the market, it was believed that this was the shortest timeframe over which a meaningful comparison could be made. Participants needed time to adjust their trading operations to accommodate outage reporting, and the overall market needed sufficient time to absorb these changes.

On implementing the TPG/IDP, the MSA observed that support for these initiatives appeared stratified depending on a participant's pre-TPG/IDP access to information. In general, the least supportive parties tended to be those with the greatest access to plant information, and therefore those participants with the greatest informational advantage at risk. The MSA heard concerns that some participants had, or planned, to exit the forward market altogether, or at the very minimum would significantly reduce their activities in the forward market in response to the TPG/IDP. The MSA has continued to be concerned with this

[1] The TDE process was introduced on July 4, 2005, after the time period for this study ends. The MSA believes that this mechanism improves outage reporting because it facilitates real-time outage reporting. Outage reporting under the OPP601 mechanism required periodic reports being published 3 times a day (8:00AM, 10:00AM and 3:00PM).

assertion. Moreover, given the strong reaction of some parties to the implementation of the TPG/IDP, the MSA believed there would likely be some realignment occurring in the market. However, given the unfairness in the forward market perpetuated by insider trading on known but not public outage information preceding the TPG/IDP, the MSA felt it should move forward with these initiatives.

The purpose of this study is:

- To assess whether the TPG/IDP is having a positive effect on the fair, efficient and openly competitive operation of the market, particularly on market liquidity;
- To assess whether unintended negative consequences of TPG/IDP require adjustments, or, indeed, the removal of IDP; and,
- To assess compliance monitoring.

Part of the assessment included collection and analysis of forward market trade data from firms in the Alberta market. This data allowed the MSA to assess if parties did exit the market or significantly reduce their activities, and to examine what re-alignment has occurred in the market. It also allowed the MSA an opportunity to assess the overall functioning of the Alberta forward market. The health of the overall market requires a well functioning forward market to facilitate risk mitigation/hedging and speculative activities. To date, the MSA has relied on case-by-case assessments of participant trading activities as well as other sources of information to gauge the health of the market. While important, this kind of reporting has not provided the MSA with a comprehensive view of the overall transactional liquidity of the forward market. The data analyzed in this study facilitates a more comprehensive view of the current state of the market.

2 METHODOLOGY OF ASSESSMENT

The MSA has undertaken a number of activities to assess the impact of the TPG/IDP including the following:

1. An assessment of forward market behavior through a survey of the largest participants in the forward market. Our key aim here is to assess whether the TPG/IDP has had the negative impact on forward market volumes postulated by some participants. This report presents aggregate results from the data provided by 11 of the larger participants in the Alberta forward market.
2. An assessment of the broader impact on the market, e.g. assessing changes in trends of pool price, pool price volatility, overall import and export volumes. The assessment also considered possible correlations between the level of forward market activity and other parts of the market.
3. A general survey of MSA stakeholders as to attitudes towards both the TPG and IDP. Although the direct effects of the initiative impacted most upon the trading community, it was still felt desirable to get the views of a broader cross section of the market. A short summary of the key findings from the survey is presented in section 4, with the complete survey attached as Appendix C.

An empirical assessment of the TPG/IDP on both the forward market and market as a whole is problematic since it is difficult to isolate the impact of other changes occurring in the market. Over the period of January 2004 to July 2005 we note that a number of changes occurred, some of which are likely to have had a greater market impact than the TPG and IDP enforcement. These changes include:

1. **Plant commissioning** – There were two significant plant commissionings that occurred after the implementation of the TPG/IDP. MacKay River, a 165MW cogeneration facility came into service in the fall of 2004. Genesee 3, a 450MW coal fired unit was tested in late 2004 and early 2005 and came into commercial operation on March 1, 2005. Between these 2 plants, a total of 615MW of generally base-loaded capacity came on line. The MSA believes that these plants, and especially the commissioning of Genesee 3, had a significant market impact.
2. **MSA guidance on uneconomic imports** – In January 2005, the MSA issued a report titled: *A Review of Imports and Exports, and Economic Use of the BC Interconnection*. The report focused on the issue of uneconomic imports and whether the motivation was managing the Pool price rather than managing an individual portfolio. Subsequently, the MSA met with individual participants and followed these discussions with a Notice to Participants related to inter-tie conduct in July of 2005.[2] As a result of guidance given to participants concerning the use of the inter-tie, it is likely that some volumes that were traded as imports have moved to the hourly bilateral market, thereby impacting same-day market liquidity.

[2] *Notice to Market Participants, RE: Intertie Conduct* (July 28, 2005), available for download at http://www.albertamsa.ca/files/NoticeIntertieConduct072805.pdf.

3. **Regulatory and market policy** – Over the course of the last 18 months, there has been debate over changes to the market design, including discussions around the introduction of capacity markets and binding day-ahead markets. Consultations culminated with the Government publishing a policy framework in June 2005. This included changes proposed in relation to the Regulated Rate Option (RRO) design. It is difficult to estimate what, if any, impact these market policy and regulatory changes may have had on forward market liquidity.
4. **Upward trend in natural gas price** – Natural gas markets have been trending upwards over the study period. AECO-C daily gas averaged $6.76/GJ in the first 6 months of 2005 compared to $6.35/GJ in the first 6-months of 2004.
5. **Plant outages** – The first 6-months of 2004 saw relatively high levels of coal availability (92%) compared to the first 6-months of 2005 (89%, including impact of Genesee 3 testing and commissioning).
6. **Climate related drivers** - warm winter and wet spring in 2005.

The difficultly in isolating market effects caused by the TPG/IDP was a key reason for supplementing our analysis with a qualitative stakeholder survey. The results of the empirical assessment of forward market activity are presented in section 3 and those of the stakeholder survey are presented in Section 4.

The assessment of the broader impact of TPG/IDP on the market as a whole did not yield results. As suspected, other changes in the market, such as the commissioning of new generation, appear to have had a greater influence that masks any trends due to the impact of the TPG/IDP. Consequently, we do not consider the results of that analysis in detail.

3 EMPIRICAL ASSESSMENT

In terms of market realignment following TPG/IDP, the MSA expected that the impact of outage reporting would most likely be seen in same-day and intra-month terms. It was believed that longer-term trading would be impacted less, given the uncertainty of future planned outage schedules (i.e. their tendency to move over time). Some residual effect on long-term transactions may have been felt, both directly via visibility created by the outage reports, and indirectly through the fact that participants may be more willing to enter into long-term contracts if they are confident in the shorter-term markets where they can unwind longer-term deals.

To facilitate this review, an Information Request was sent to 11 of the larger players in the forward market in Alberta. We requested monthly volumes of same-day, intra-month and total physical and financial forward volumes transacted, as well as total volume broken down by market venue (broker, exchange and direct bi-lateral) [3]. Although these volumes do not account for all transactions that have occurred in the market, we believe it provides a good proxy of overall market liquidity by representing a lower bound for transaction volume. In general, the MSA was pleased with the responses from participants and thanks those companies involved for the work they did in compiling the data.

3.1 Transaction volumes on the Alberta Short-Term and Forward Market

Figure 3.1 reports the volume breakdown by transaction term[4] and indicates that total trade volumes are about 1.4 times the physical market. For context, mature commodity markets trade at 6 to 20 times the physical market. **Figure 3.2** presents the same data showing each category as a percentage of total volumes. The transaction terms are segmented into 3 categories; long-term, intra-month and same-day. Same-day volumes are trade volumes executed and settled/delivered on the same-day. These volumes could include flat, peak, off-peak, super-peak, balance of day or hourly products. Intra-month volumes include any trades executed and delivered/settled in the same month. These could include multi-day, weekly, bi-weekly, balance of month or full month products, or any variant thereof whether flat, peak or off-peak. Long-term volumes are a residual based on subtracting same-day and intra-month volumes from the total transaction volume reported. These volumes represent any trades with durations greater than one month. This category could include multiple-month, quarterly, or yearly transactions, or any variant thereof.

Figure 3.2 shows that long-term volumes represent 96% of reported transaction volumes. Intra-month represents 4% and same-day 0.5% This outcome is not surprising given that a flat yearly 25MW contract represents 219,000MWh verses

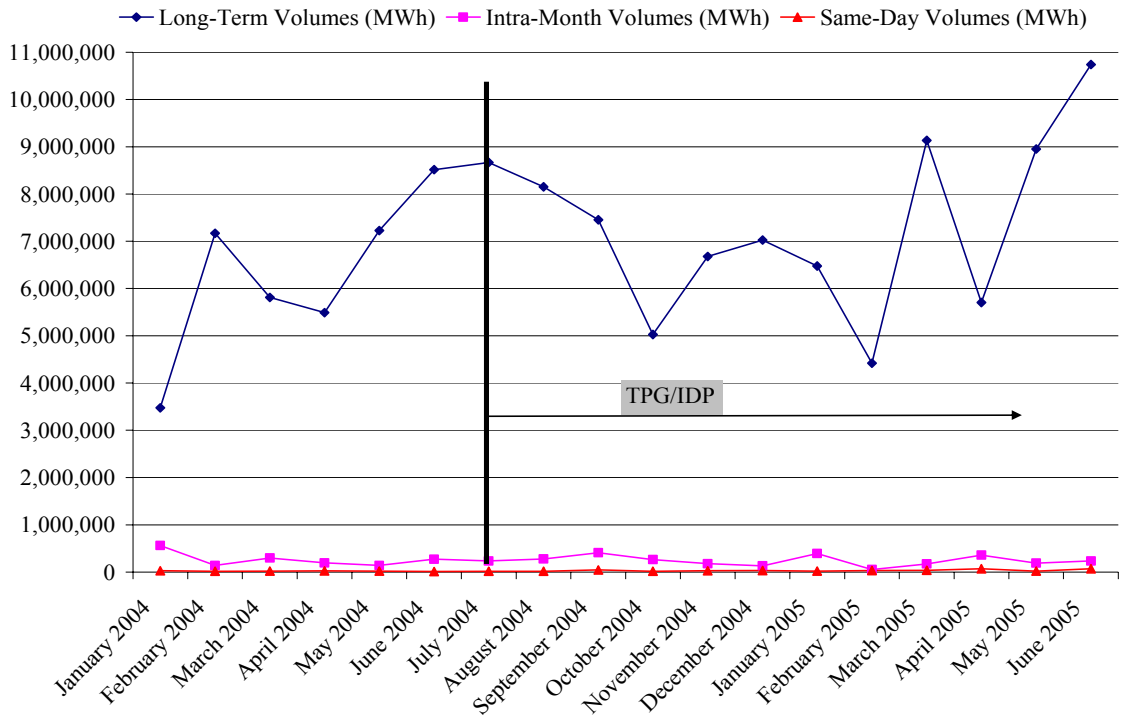
[3] A generic copy of the Information Request that was sent to participants is attached as Appendix A. A summary of the data collected is provided in Appendix B.

[4] It should be noted that when interpreting the data presented throughout this study, an issue of double counting arises. What is recorded as a sale on one participant's book will be recorded as a purchase by the counterparty. Therefore the same MWh volume will, in most cases, be reported by the two sides of a deal in this study.

a flat daily 25MW contract which amounts to 600MWh. **Figure 3.1** demonstrates how volatile trading volumes are over time.[5] Long-term volumes appear to have declined after the introduction of the TPG/IDP in the late summer/fall of 2004, and then rebounded through the winter/spring of 2005. It is difficult to determine if the decline in long-term volumes in the summer/fall of 2004 was a response to the TPG/IDP, given that these are the volumes that should be least impacted by outage reports. Whether or not this was the case or whether this pattern was driven by seasonality or other impacts such as plant commissions is open to speculation. What the data does show is that, irrespective of the cause of the volume decline, the impact was transitory as volumes recovered through 2005. In 2004, long-term volumes peaked in June at 8.5 million MWh. In 2005 year-to-date, long-term volumes peaked in June at 10.8 million MWh, an increase of 27%.

Overall, 8 of the 11 companies surveyed had increased forward market transaction volumes when comparing Jan-June 2004 with Jan-June 2005 (See **Table 1**). Consistent with the above analysis, only 4 of 11 companies increased intra-month trading volumes, while 9 of 11 companies saw increased same-day volume.

Figure 3. 1: Total Volume by Term: Long-Term, Intra-Month and Same-Day



[5] The volatility of intra-month and same-day volumes is shown more clearly in Figures 3.3 and 3.4.

Figure 3. 2: Volume Breakdown by Term: Long-Term, Intra-Month and Same-Day

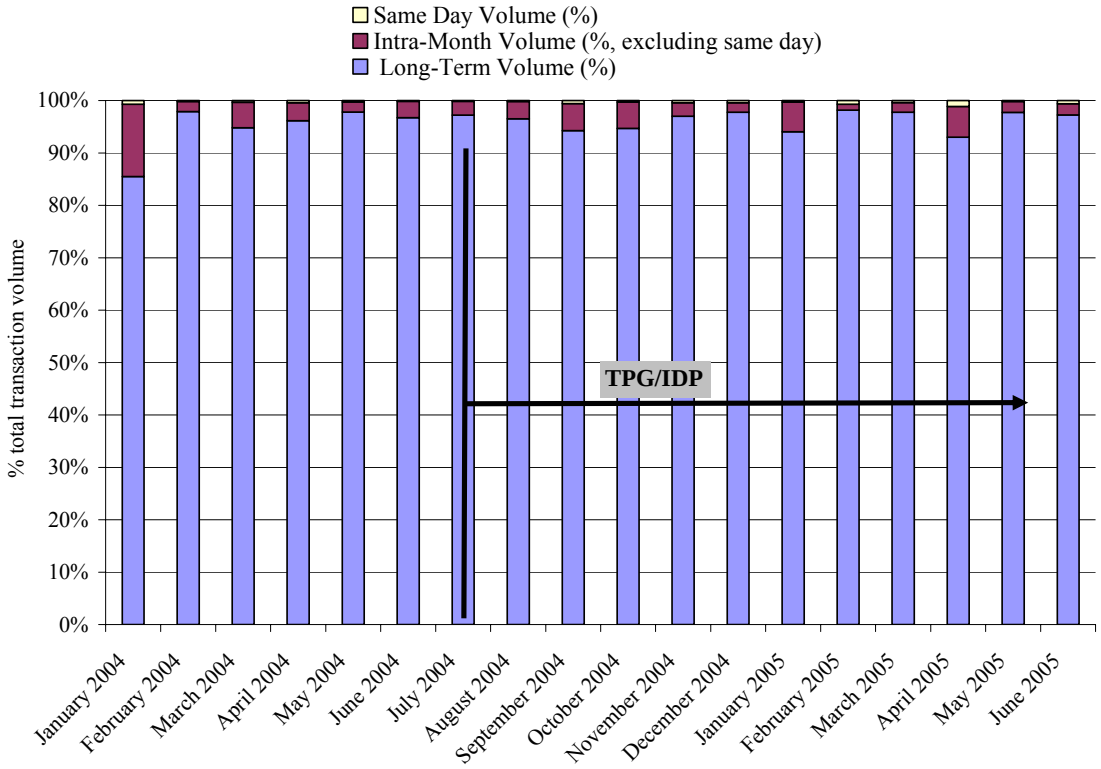
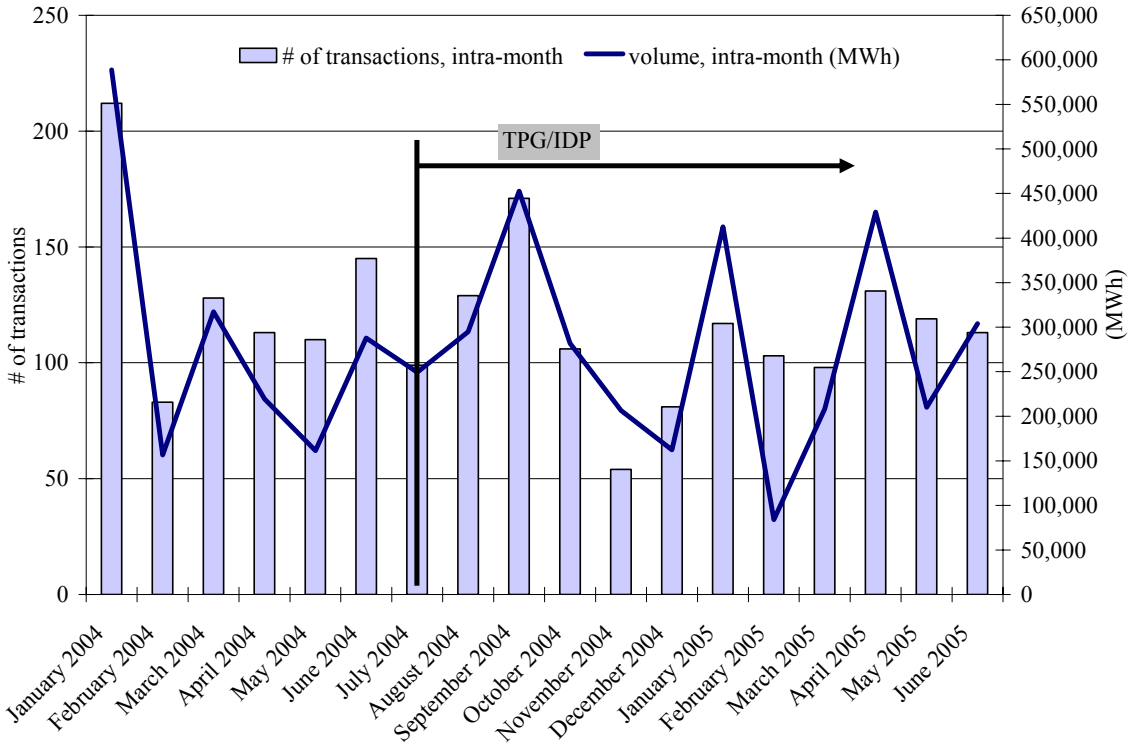


Table 1: Surveyed Companies Volume Increases, Jan-June 2004 Compared to Jan-June 2005

Total Volume	8 of 11 companies increased total volumes
Long Term	8 of 11 companies increased long-term volumes
Intra-Month	4 of 11 companies increased intra-month volumes
Short Term	9 of 11 companies increased short-term volumes

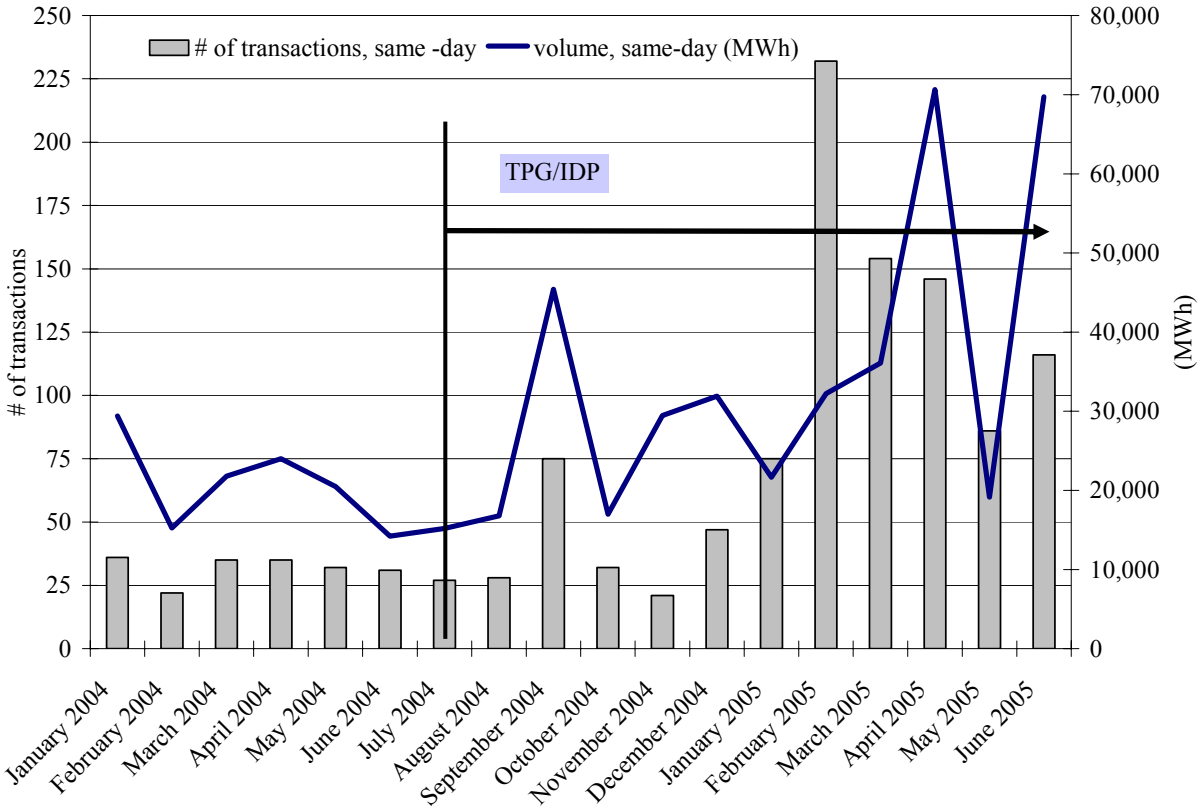
Figure 3.3 reports intra-month volumes and the number of transactions to achieve those volumes. Comparing the first 6 months of 2004 with 2005 shows that intra-month volumes have fallen by 4.8%. Most of this decline can be attributed to the large volume and number of transactions that occurred in January 2004. In terms of the impact of TPG/IDP, intra-month volumes increased during the first 3 months following the implementation of the TPG/IDP at the beginning of July 2004. Intra-month volumes then began declining through Q4/2004, recovered somewhat in January 2005, but then fell to their lowest point in February 2005. It is likely that this decline in volumes is related to the commissioning of MacKay River and Genesee 3. Intra-month volumes appear to have recovered through the end of Q1 and Q2, 2005. It is therefore difficult to ascertain if the TPG/IDP was responsible for some of the volume variability, or whether other market dynamics were occurring (or both).

Figure 3. 3: Intra-Month Volumes and Number of Transactions



Same-day volumes and number of transactions are reported in **Figure 3.4**. Prior to the introduction of TPG/IDP, same-day volumes were generally trending down, while the number of transactions was relatively stable (average transaction size was declining). Since TPG/IDP was introduced, same-day volumes and the number of transactions have shown a significant upward trend. Peaks of same-day volumes in April and June 2005 correspond to times at which the MSA gave guidance to specific participants with respect to acceptable import behavior. Notwithstanding those peaks, the MSA is encouraged by the growth in both volumes and transactions in this market segment.

Figure 3. 4: Same-Day Volumes and Number of Transactions



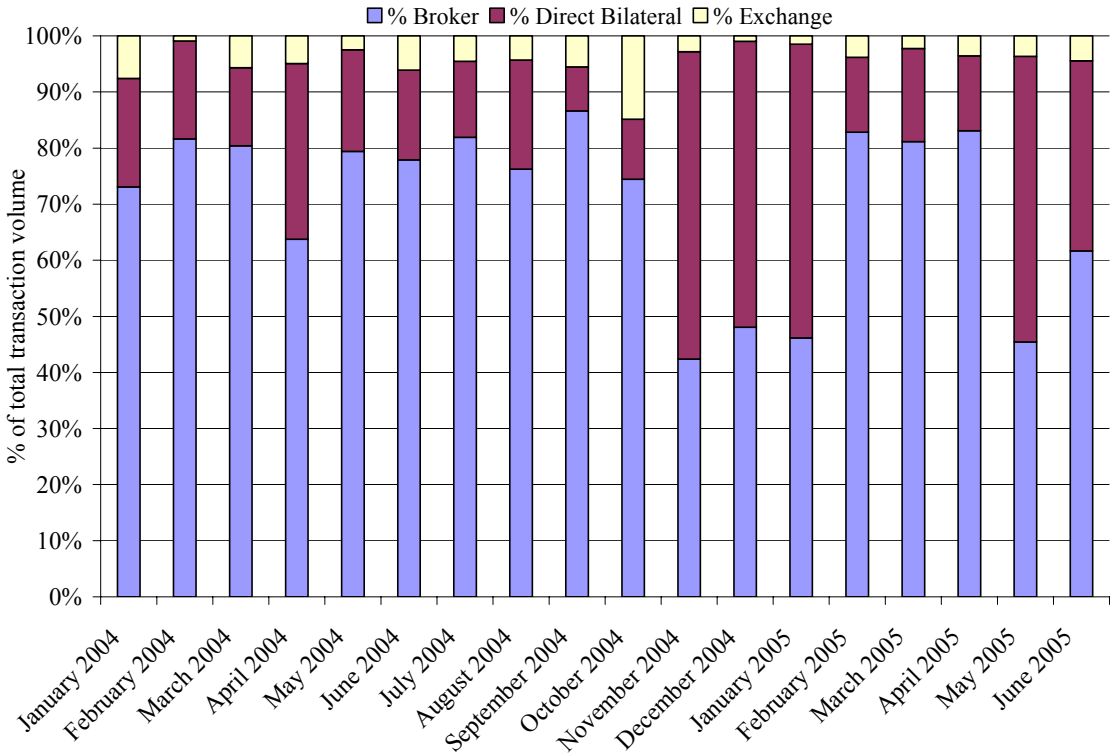
Overall, the transaction volume data shows that although there has been volatility in volumes among terms, trading activity did not significantly decline following the introduction of the TPG/IDP. Furthermore, among the eleven participants surveyed, no participant exited the market and one participant entered the intra-month market after the TPG/IDP was introduced.

3.2 Transaction volumes by broker, direct bilateral and exchange

Figure 3.5 provides a breakdown of the data by broker, direct bilateral and exchange. Over the 18-month survey period, 70% of total volumes were transacted through a broker, 26% through a direct bi-lateral deal and 4% through an exchange. By way of comparison to other markets, according to the May 2004 FERC Report on Natural Gas and Electricity Price Indices[6], reported trading venues for forward fixed-price electricity transactions were as follows: broker: 49%; bilateral: 33%; Exchange 18%. The data suggests that the Alberta market is relatively heavily weighted towards brokered transactions, and much less weighted towards exchange based transactions than the markets surveyed by FERC. The importance and lack of visibility of the broker and bilateral markets raises transparency concerns for the MSA. As such, the MSA will continue to focus on analysis of these market segments going forward.

[6] Cited from: "Shopping for Curves", Energy Risk, March 2005. pp. 123.

Figure 3. 5: Total Transaction Volumes by Broker, Direct Bilateral and Exchange



4 STAKEHOLDER SURVEY ON THE TPG/IDP

The principle upon which the TPG rests, i.e., trading on future outage information that is not in the public domain creates the perception and/or reality of unfairness in the forward market, and over time has a negative effect on the market, is taken as incontrovertible. The MSA believes this position garners wide support in the market, based on both direct feedback from participants and based on the broad support for the principle underlying the TPG that was observed in an independent survey of participants commissioned by the MSA.

The segment of the market most directly affected by the TPG/IDP is the trading community. However, it was deemed appropriate to get a sense of how the TPG/IDP was viewed by a broader audience. The canvassed group was the stakeholders that are surveyed each year on the MSA's general performance of its duties. Accordingly, JEM Energy was commissioned to design and implement the stakeholder survey. The field work was executed during the second half of July. This being prime holiday season was unfortunate in terms of contacting as many stakeholders as possible, but unavoidable given that this review was required to be completed before the fall. From a list of 273 contacts, JEM Energy was able to contact 124. Of those, 70 completed the survey and 54 felt they had insufficient knowledge on the subject to participate. The complete survey report from JEM Energy is presented in Appendix C.

The key messages from the survey are as follows:

- The TPG/IDP mechanism is very focused on trading operations. Consequently, familiarity with the subject is somewhat limited in the population of stakeholders as evident from the fact that 54 of 124 contacted stakeholders did not complete the survey. (Question 1 was designed to garner the level of knowledge on the subject and the survey was stopped if the respondent knew very little).
- The strongly held view on the TPG by the majority of those completing the survey is that it is based on a sound principle.
- The outage reports published by the MSA 3 times a day throughout the period July 2004 to July 2005 (currently published in real time by the AESO) are viewed quite frequently by stakeholders. The reports influence their short-term trading decisions – meaning same-day or next-day contracts. The outage reports do not have much impact on longer-term trades.
- There was fairly tepid support for the suggestion that the TPG/IDP has had a material and beneficial impact on market confidence and trading decisions.
- An area where the stakeholders were very unclear is whether the MSA was effectively enforcing the requirements of the TPG/IDP – clearly an area for improvement in MSA communications to the market.

The result that stakeholders were not able to strongly support the material beneficial impact of TPG/IDP is not surprising given the many uncontrollable

events in the market place that have occurred this past year. However, it is interesting that the traders do make frequent use of the outage reports. Regarding stakeholders' lack of visibility on enforcement, the MSA's practice is to try to deal directly with the behaviour. To the extent that this approach is successful, means the needed enforcement is more 'behind the scenes' and not so readily apparent to stakeholders. But, rest assured that monitoring and enforcement are taking place. Should the more informal approach not yield the change in behaviour that we desire, our recourse is an investigation leading to sanctions and penalties available through the tribunal process.

5 TPG/IDP COMMUNICATIONS AND ENFORCEMENT

Since July 2004 the MSA has been actively monitoring and enforcing the TPG/IDP. In the fall of 2004 the MSA initiated investigations of 3 participants with respect to outage disclosure and trading. In each of these cases, the MSA found breaches of the TPG/IDP. The MSA exercised forbearance with respect to these cases as participants were coming up the learning curve with respect to outage disclosure. In return, the MSA received assurances that these participants would put into place business practices which would prevent TPG/IDP violations in the future.

During the winter of 2005, the MSA conducted 4 preliminary assessments of trading activities around outages. These preliminary assessments have shown that although there is generally a good level of compliance with the TPG/IDP, there remains tension between some PPA Buyers and Owners with respect to the flow of outage information from Owners to Buyers and then to the AESO. An area of contention has been the timing of outage disclosures and specifically when each party knows an outage has been declared to the AESO. The MSA has continued to monitor this situation, and is developing, in cooperation with the AESO, a mechanism in the TDE procedure that will automatically inform PPA Owners when an outage has been made public by the Buyer via the AESO's TDE mechanism. The AESO has begun IT development work on this messaging system and the MSA is hopeful it will be completed before the end of 2005.

In general the MSA has been pleased with the efforts participants have made to establish business processes that help prevent TPG/IDP violations. Although some tensions remain between certain PPA parties, the MSA believes that the flow and consistency of outage data from both PPA and non-PPA participants has improved over time. It is hoped that the automated messaging system being developed will settle issues remaining around outage notification timing.

One issue the MSA has noted over the course of its preliminary assessments and investigations pertains to the recording transaction dates and times. It has not been the practice of some trading operations to record transaction times, and upon request of this information by the MSA, these participants have had to expend considerable effort reviewing phone logs to provide transaction times. The MSA will continue monitoring trading around outages going forward, and therefore recommends that participants adjust their business processes to record transaction times if they want to avoid the effort required to reconstruct transactions using phone logs.

6 CONCLUSIONS

The trade data examined shows that there has been an upward trend in overall volumes of forward market transactions, mostly dominated by long-term volumes. There appears to be some evidence of a small reduction in intra-month volumes and a strong upward trend in same-day volumes. No firms exited the market after the implementation of the TPG/IDP. Consequently, we believe the postulations of some participants that liquidity would be damaged have not materialized. The significant increase in same-day volumes may be attributable to the increased visibility created by the outage reports, and, in the spring of 2005, to guidance given to the market around uneconomic imports and exports. These observations are by inference only, however, as the aggregate nature of the data does not provide an opportunity to explicitly test these hypotheses.

The MSA has continued to work on improving the IDP mechanism. We believe the TDE process is an improvement over outage reporting because it centralizes reporting through the AESO's ETS system and provides real time updates as participants update their TDE submissions. Along with system improvements, the MSA has noted improvements over the last year in terms of the accuracy and timelines of outage reporting by participants.

The postulated concern by some participants that they would be disadvantaged through the use of the IDP (meaning that their 'short' position would be generally known at the time that they were trading to manage their risk) was mitigated through the disguise mechanism imbedded in the IDP protocols. Neither the survey of the larger trading groups nor of the larger population of market participants raised this matter as a major concern.

The view of the MSA has been that the TPG and the disclosure mechanism used to support it, namely the IDP, is a fundamental part of ensuring a level playing field and the fair, efficient and openly competitive operation of the market. Based on this assessment, we conclude that the TPG/IDP has not had an adverse impact on overall volumes and a broad group of stakeholders continues to support the principle behind TPG. Thus, the TPG/IDP will be retained.

The MSA commits to seek continued improvements to the IDP process. One such improvement, implemented in July 2005, was the real-time reporting facilitated via the AESO's ETS system. We are currently working with the AESO to implement an automated messaging system to resolve any remaining issues concerning the timing of outage notifications.

APPENDIX A: MSA INFORMATION REQUEST 2005-07-06

Chris Joy
Senior Market Analyst
Telephone (403) ***233-6418***
Fax (403) 232-8343
chris.joy@albertamsa.ca

July 6, 2005

Delivered via email to:

Participant XXXXX
XXX, AAA S.W.
Calgary, Alberta
TXX XXX

Attention: Partcipant XXXXX

Dear Sir/ Madam:

RE: INFORMATION REQUEST XXXXXX 2005-07-06: ASSESSMENT OF THE ALBERTA SHORT TERM AND FORWARD MARKET

The Market Surveillance Administrator ("MSA") is commencing an assessment of the Alberta electricity market to examine the impact of the Trading Practices Guideline ("TPG") and related Information Disclosure Procedure ("IDP"). As well, the assessment aims to analyze the overall health of the short term and forward market. Pursuant to its mandate under the Electric Utilities Act ("Act"), the MSA is requesting that XXXX ("XXXX") provide certain information, including (without limitation) related documentation, as set out below.

Information provided to the MSA in relation to this matter will be held in confidence to the extent required by the Act and regulations made under the Act. The intention of this information request is to gather highly aggregated monthly transactional data, and to do so in a manner that creates the least burden possible for market participants.

The MSA is requesting that XXXX provide the following monthly Alberta electricity short term and forward market data for the period January 2004 to June 2005, both inclusive. This time period is required to assess a 6-month period before and 1-year period after the MSA began enforcing the TPG/IDP in July 2004. A data template is provided, and the MSA would ask that XXXX complete the template and return it to Chris Joy at the MSA in electronic format by **July 29, 2005**.

The template contains a number of data fields, which are explained below. In your response, please note the following:

- **Do not** include the following types of transactions: volumes purchased or sold into the AESO energy market on a real time or spot basis; unit or plant offers in the AESO energy market, import or export volumes on the BC or Saskatchewan interchanges; losses; interchange transmission; Transmission Must Run ("TMR") volumes; operating reserve or ancillary services volumes.

- For all data fields, transactions should be reported in the month the transaction is executed rather than the month(s) the transactions are delivered or settled.

Data Fields

1. **Total Transaction Volume, MWh**
   Total transaction volume refers to the volume, in MWh, of all short term and forward transactions, physical or financial, executed in respect to the Alberta market in a given month. (This should include all volumes reported in data fields 6 and 8 plus any additional transactions)

2. **Total Number of Transactions**
   This field refers to the number of transactions in a given month that were executed to achieve the Total Transaction Volume reported in the above response (data field 1).

3. **Total Transaction Volume Executed Through an Exchange, MWh**
   This field refers to the portion of the volumes (MWh), in a given month, that are reported in data field 1, that were transacted on an Alberta forward market exchange (WattEx or NGX).

4. **Total Transaction Volume Executed Through a Broker, MWh**
   This field refers to the portion of the volumes (MWh), in a given month, that are reported in data field 1, that were transacted using a Broker.

5. **Total Transaction Volume Executed Through a Direct Bilateral, MWh**
   This field refers to the portion of the volumes (MWh), in a given month, that are reported in data field 1, that were transacted through a direct bilateral deal with a counterparty (no broker).

Note: Volumes reported in data fields 3, 4 and 5 should sum to the volume reported in data field 1.

1. **Total Transaction Volume Delivered within Execution Month (Short Term Transactions), MWh**

   This data field refers to the volume of forward transactions (MWh) that are executed and delivered (in whole or in part) in the same month. (This should include all volumes reported in data field 8)

2. **Total Number of Transactions Delivered within Execution Month (Short Term Transactions)**

   This data field refers to the number of transactions that were executed to achieve the volume reported in data field 6. (This should include the number of transactions reported in field 9, as well as any other intra-month volumes)

3. **Total Transaction Volume Delivered Same Day, MWh**

   This data field refers to the volume of same day transactions (MWh) that are executed and delivered (in whole or in part) on the same day.

4. **Total Number of Same Day Transactions**

   This data field refers to the number of same day transactions that were executed to achieve the volume reported in data field 8.

In addition to completing the data template, if XXXX has any comments or observations it would like to provide with respect to the TPG/IDP or the health of the Alberta forward market, we would encourage you to provide written comments along with the data template.

The MSA appreciates your efforts in responding to this information request. The data requested is essential to evaluating the impact of the TPG/IDP, as well as the current health of the Alberta short term and forward market.

Thank you for your cooperation and assistance.

Yours truly,

MARKET SURVEILLANCE ADMINISTRATOR

Per:
Chris Joy

APPENDIX B: DATA SUMMARY

	Data Field	1	2	3	4	5	6	7	8	9
		Total transaction volume	Total number of transactions	Total transaction volume executed through an exchange	Total transaction volume executed through a broker	Total transaction volume executed through a direct bilateral	Total transaction volume delivered within execution month (short term transactions)	Total number of transactions delivered within execution month (short term transactions)	Total transaction volume delivered same day	Total number of same day transactions
Year	Month	(MWh)	##	(MWh)	(MWh)	(MWh)	(MWh)	##	(MWh)	##
2004	January 2004	4,064,637	345	308,112	2,968,969	787,556	588,791	212	29,410	36
2004	February 2004	7,327,118	208	66,600	5,981,357	1,279,161	156,600	83	15,244	22
2004	March 2004	6,127,870	290	346,525	4,927,182	854,163	317,289	128	21,800	35
2004	April 2004	5,708,685	281	285,805	3,698,375	1,818,105	219,395	113	24,000	35
2004	May 2004	7,387,073	287	184,355	5,866,392	1,338,126	161,358	110	20,496	32
2004	June 2004	8,804,839	373	542,266	6,922,697	1,423,084	287,845	145	14,220	31
2004	July 2004	8,916,853	264	406,305	7,335,345	1,212,403	249,357	99	15,200	27
2004	August 2004	8,446,328	352	364,820	6,503,195	1,660,763	294,825	129	16,800	28
2004	September 2004	7,905,732	389	435,329	6,855,131	623,672	452,520	171	45,400	75
2004	October 2004	5,308,823	257	793,985	3,973,686	571,377	281,932	106	16,980	32
2004	November 2004	6,883,586	240	196,080	2,935,829	3,797,277	206,565	54	29,450	21
2004	December 2004	7,185,727	269	69,312	3,469,745	3,680,270	162,317	81	31,911	47
2005	January 2005	6,889,684	269	101,240	3,189,654	3,620,390	412,653	117	21,655	75
2005	February 2005	4,504,443	476	172,760	3,749,472	605,011	84,014	103	32,225	232
2005	March 2005	9,340,855	427	209,785	7,599,996	1,554,874	208,270	98	36,082	154
2005	April 2005	6,133,650	455	218,845	5,113,660	821,225	429,225	131	70,655	146
2005	May 2005	9,163,111	326	335,645	4,191,345	4,698,921	210,075	119	19,165	86
2005	June 2005	11,045,166	396	489,675	6,810,542	3,746,749	303,811	113	69,741	116
	total	131,144,182	5,904	5,527,444	92,092,572	34,093,129	5,026,842	2,112	530,434	1,230

APPENDIX C: PARTICIPANT SURVEY

Market Surveillance Administrator

Trading Practices Guideline

And

Information Disclosure Procedure

Evaluation and Assessment Report

Prepared By
JEM Energy Inc.
August 16, 2005

Acknowledgements

The author wishes to acknowledge the valuable input and comments of Doug Doll and Mike Nozdryn-Plotnicki of the Alberta Market Surveillance Administrator in the design, preparation and reviewing of this initiative.

Respectfully submitted,
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Executive Summary

The Alberta Market Surveillance Administrator's (MSA) mandate is to keep a close watch on the overall performance of Alberta's electricity market - checking that it operates fairly, efficiently and in an openly competitive manner. The objective of this research for the MSA was to gain market participant feedback on the effectiveness of the Trading Practices Guideline (TPG) and the Information Disclosure Procedure (IDP) over the first 12 months of implementation.

JEM Energy conducted a telephone survey with Alberta electricity market stakeholders using a survey instrument and methodology approved by the MSA. From the total of 273 stakeholders supplied by the MSA, 124 contacts were made, 70 surveys were completed and 54 were not sufficiently familiar with the topic to complete the survey.

Top ratings were given for the principle behind the TPG: ***Market participants must not trade on the basis of known but not public information about the status of supply, load or transmission assets that can reasonably be expected to have a material impact on market price.*** Almost 73% rated a 5 or higher out of 7 for this being a sound principle.

Responses varied mostly regarding familiarity with the TPG and the influence it had on short and longer term trading decisions. This was also supported in the comments.

Areas where improvement would be welcomed are in expanding the overall awareness of the TPG and communicating any enforcement of the requirements of the IDP.

1. Objective

Determine the effectiveness of the Trading Practices Guideline (TPG) through the Information Disclosure Procedure (IDP) offered by Alberta's Market Surveillance Administrator over the past 12 months.

2. Background

On February 18, 2004 the MSA issued the Trading Practices Guideline, which stated the following:

1.1 MSA Trading Practices Guideline
The potential for trading on future outage information that is not in the public domain creates the perception and/or reality of unfairness in the forward market. Such behaviour or its potential impairs the development of forward market liquidity and is detrimental to the evolution of Alberta's wholesale and retail power markets. Therefore, the MSA is establishing the following Trading Practices Guideline:
Market participants must not trade on the basis of known but not public information about the status of supply, load or transmission assets that can reasonably be expected to have a material impact on market price. Trading shall be understood to include any type of financial or physical transaction or operational strategy designed to extract value from known but not public information about the status of supply, load or transmission assets.

Upon implementation, the MSA committed to review the TPG after 12 months. This survey and report is part of the MSA's commitment to conduct that review.

3. Methodology

JEM Energy designed a survey instrument and delivered a questionnaire by telephone with the following parameters:

- MSA provided a stakeholder list of 273 possible contacts complete with direct telephone numbers. The contact list was the same one used in the MSA stakeholder satisfaction survey conducted earlier in 2005 and is a non-selective list of market participants, stakeholders and other interested parties
- JEM Energy drafted the scripting for the questionnaire and the final copy was approved by the MSA
- The completion target was 100 surveys.
- The fieldwork was completed in a 2-week period between July 18, 2005 and July 29, 2005.
- The questionnaire consisted of a total of 13 questions, of which 10 were closed ended and 3 were open ended. The questions were based on the Likert scale using a rating from 1 to 7, plus three (3) open-ended questions for comments and/or support for the ratings. "Don't know" was an option if unable to provide a rating
- In question 1, which attempted to assess familiarity with the TPG and IDP, if the respondent rated a 1 (not at all familiar), then it was determined they did not qualify to complete the questionaire and the survey was terminated.
- The survey was designed to be answered in less than 10 minutes

- Calls were attempted up to 4 times to contact and secure a response to the questionnaire for each listed participant until the target number was achieved or the contact list was exhausted.

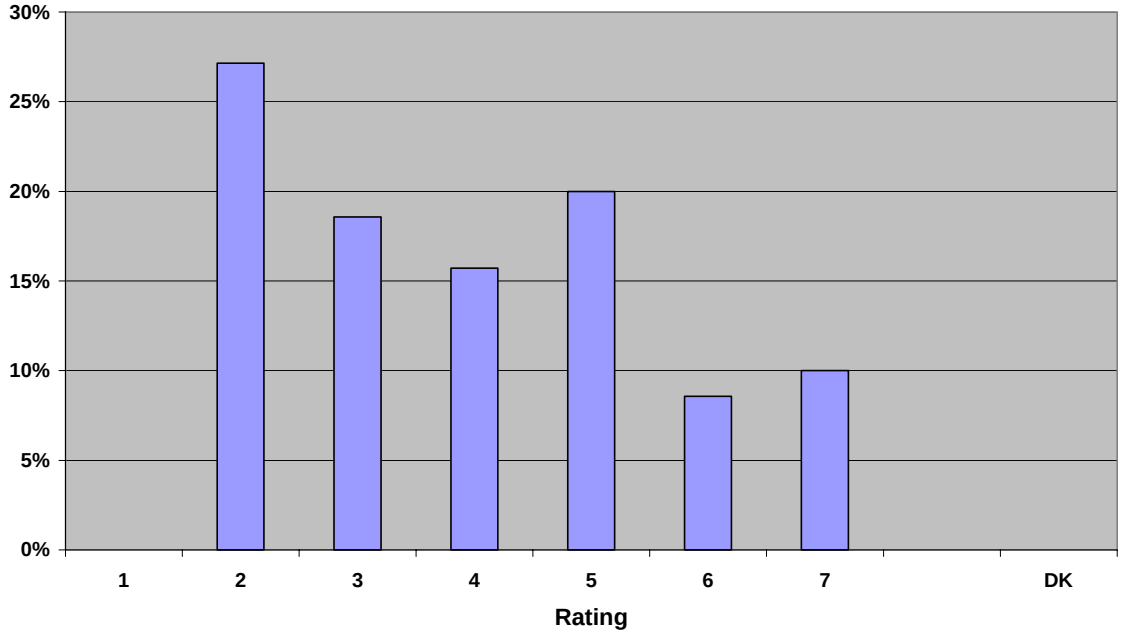
4. Results

In all, 70 surveys were completed out of a potential stakeholder list of 273. There were 124 (45%) successful contacts made, however 54 did not qualify for completion. The reason for this was lack of familiarity with the TPG and IDP. If for question 1, which attempted to assess familiarity with the TPG and IDP, the respondent rated a 1 (not at all familiar), then it was determined they did not qualify and the survey was terminated.

This section provides the questions and graphical representation of the responses followed by the average rating and standard deviation for each question. 1 is low and 7 is high on all rating scales with the option for "don't know" (DK) if unable to provide a rating.

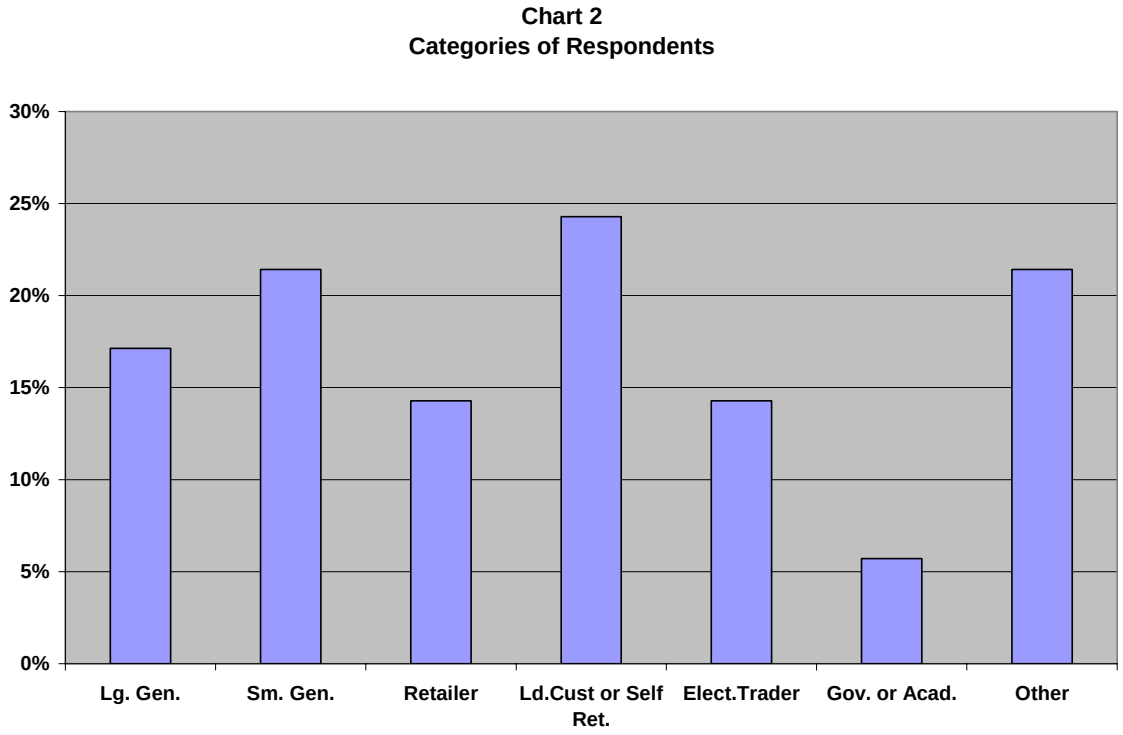
Question 1. On a scale of 1 to 7, where 1 is not at all familiar and 7 is extremely familiar, how familiar are you with the MSA's Trading Practices Guideline and the Information Disclosure Procedure?

Chart 1
TPG & IDP Familiarity



Average Rating: 3.9 Standard Deviation: 1.7

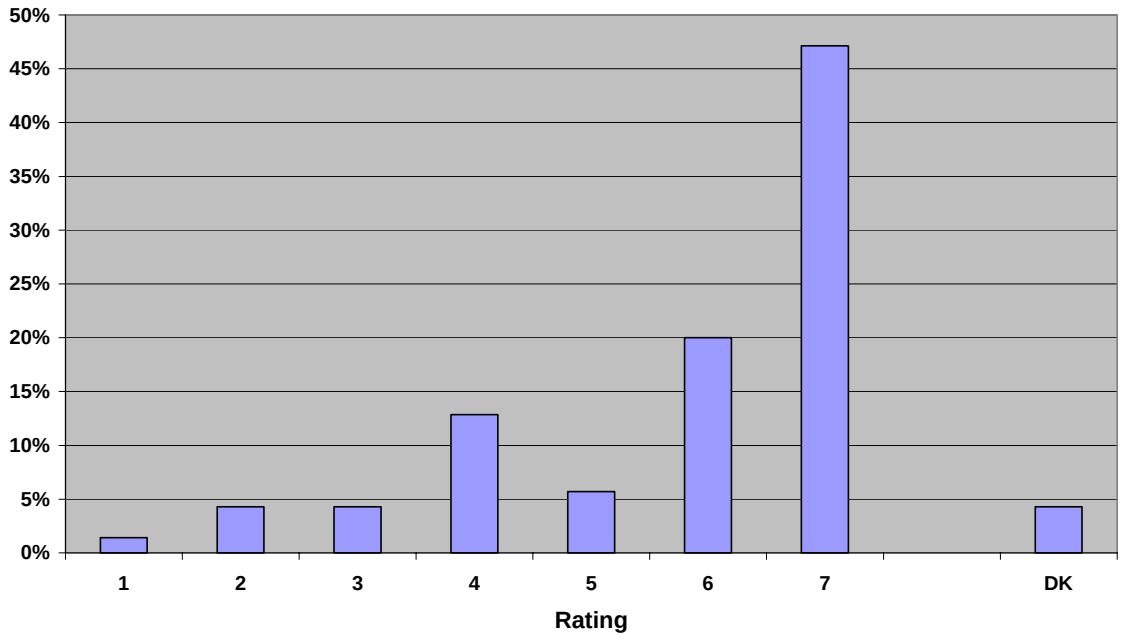
Question 2. Which of the following categories best describes your business unit?



Note: Some respondents identified themselves as more than one category, thus the total is greater than 100%. This is also reflected in Chart 9.

Question 3a. The principle behind the TPG is**, trading with the knowledge of upcoming outages unknown to the market at large, does NOT promote a fair, efficient, and openly competitive market.** On a scale of 1 to 7, where 1 is not at all sound and 7 is extremely sound, how sound would you rate this principle?

Chart 3
TPG Sound Principle



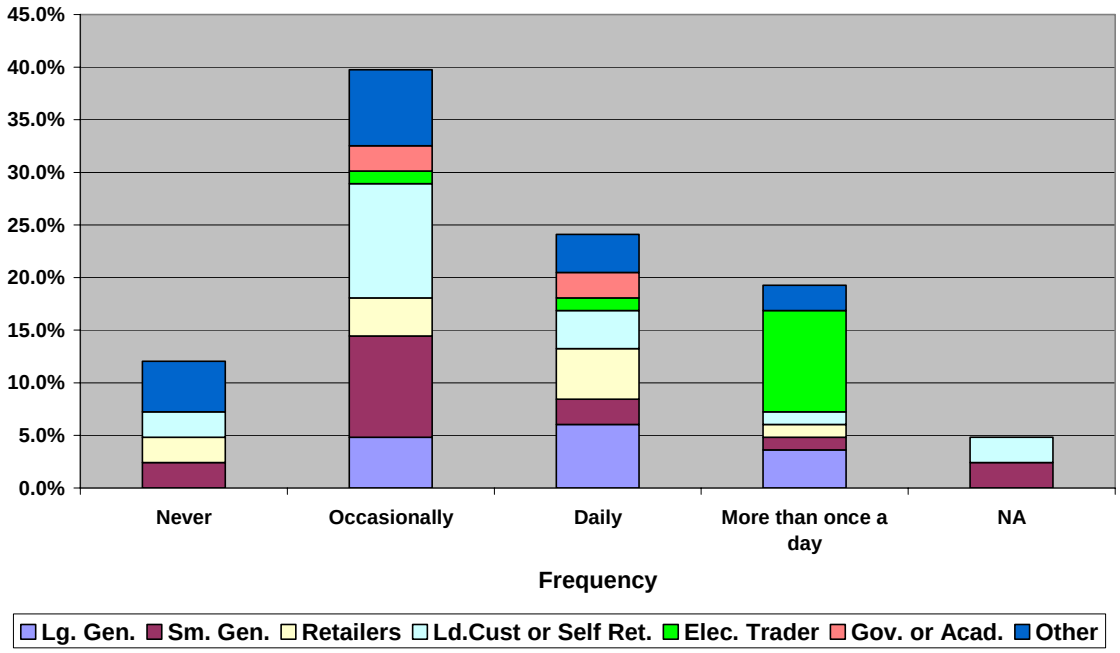
Average Rating: 5.8 Standard Deviation: 1.6

Question 4a. An outcome of the IDP is published outage reports by the AESO, which were initiated by the MSA. Are you aware of these published outage reports?

YES 63 NO 7

Question 4b. If yes, how regularly do you view them?

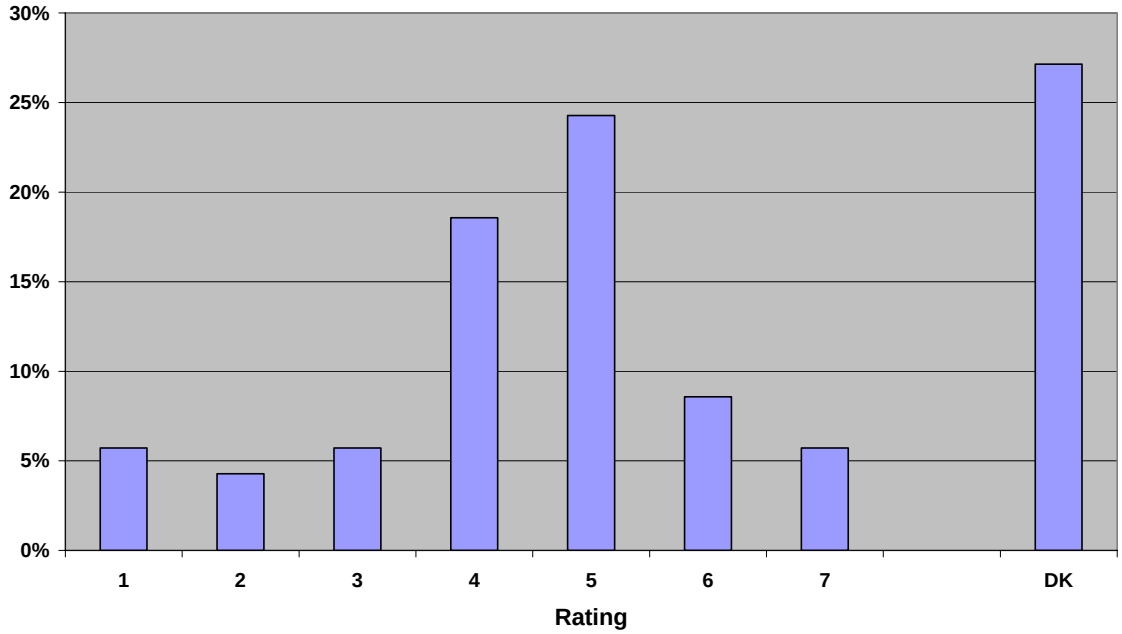
Chart 4
Viewing Outage Reports



Question 5. On a scale of 1 to 7, where 1 is strongly disagree and 7 strongly agree, how would you rate the following statements:

a. The TPG Information Disclosure Procedure has had a material and beneficial impact on market confidence and trading decisions.

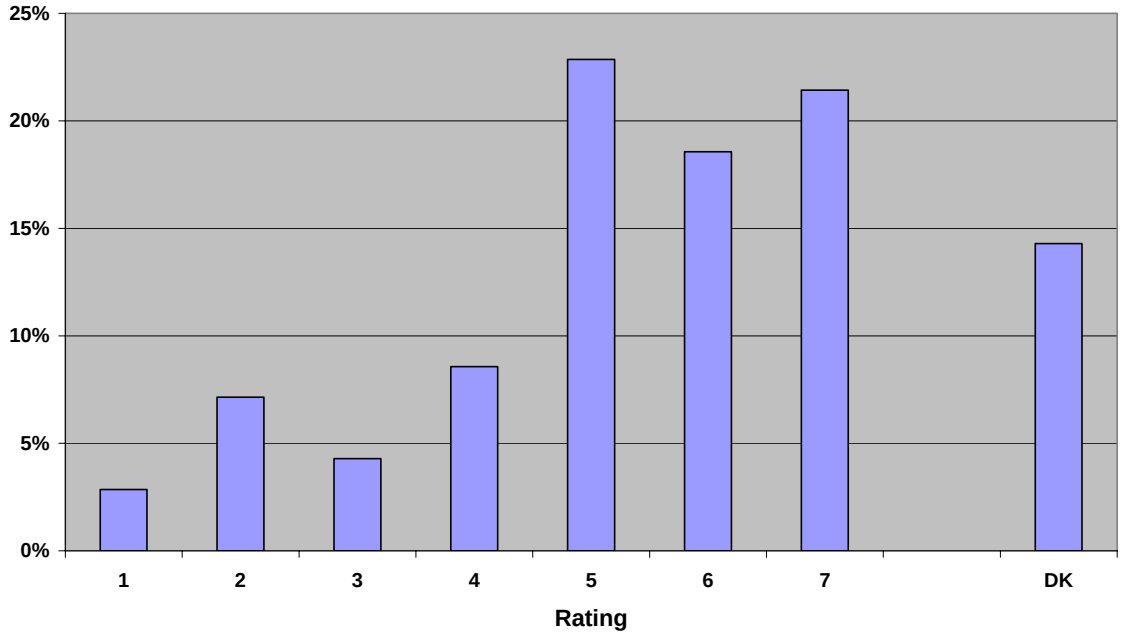
Chart 5
Market Impact



Average Rating: 4.4 Standard Deviation: 1.6

b. The outage reports influence *short-term* trading decisions in the market. (short-term trading is defined as trading of same day or next day contracts)

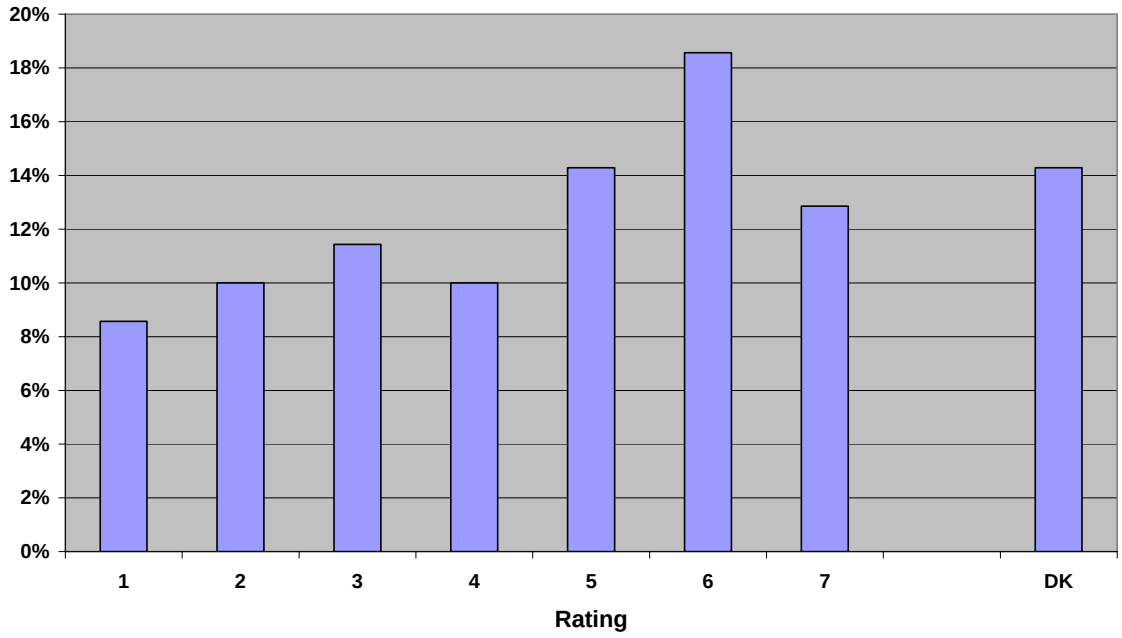
Chart 6
Short Term Trading Influence



Average Rating: 5.1 Standard Deviation: 1.7

c. The outage reports influence longer-term trading decisions in the market (longer-term trading is defined as trading in contracts longer than next day, i.e. 1 week, balance of month, next month, next quarter)

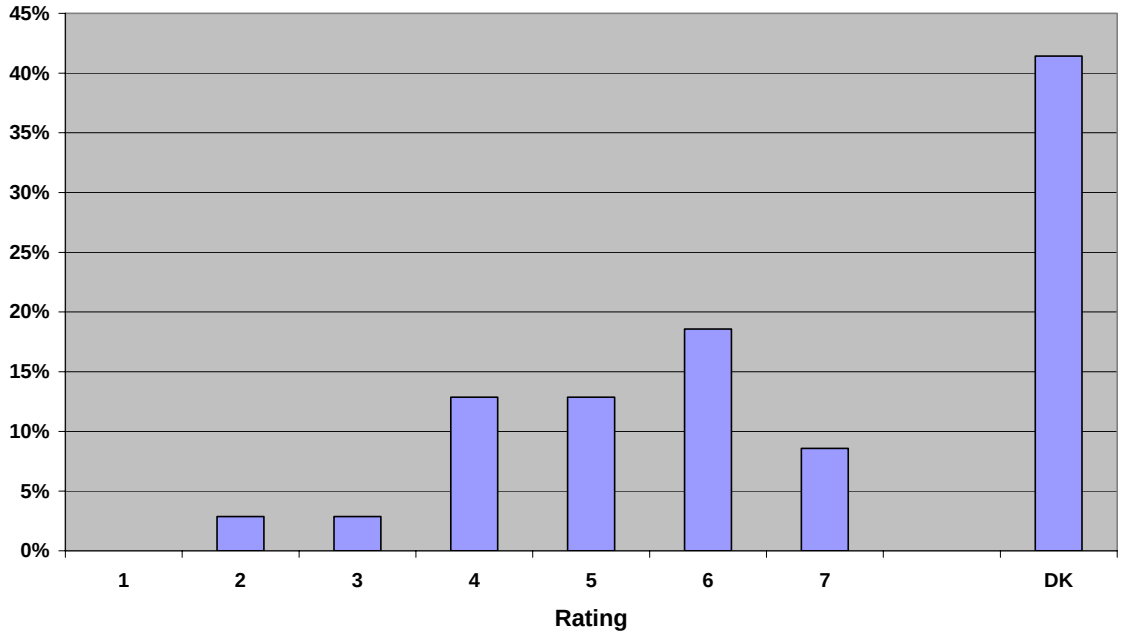
Chart 7
Longer Term Trading Influence



Average Rating: 4.4 Standard Deviation: 1.9

d. The MSA is effectively enforcing the requirements of the Information Disclosure Procedure.

Chart 8
IDP Enforcement Effectiveness



Average Rating: 5.1 Standard Deviation: 1.3

5. Summary of Comments

Most respondents strongly supported the principal behind the TPG as sound, indicating it would be unfair and, in some cases, unethical not to disclose information to the market at large that could impact price. About 5% of total respondents commented to not support full disclosure, citing asset ownership and investment as a basis for using proprietary information as a legitimate reason for financial gain. This group felt that they should be able to use any information they had to their advantage, whether gathered from internal sources or through intelligence. Some (less than 5%) indicated it presented a dilemma, and "it would seem fair that an asset owner should be able to draw short term benefit from exclusive information, but in longer term withholding information is not good for the market."

There were about 10% of comments questioning the IDP impact on market confidence and trading decisions. Some were skeptical of the outage report's accuracy or cases where outages cited in the reports did not always occur. Others commented they haven't seen any evidence whether the IDP was having an impact or not. One suggestion was for the MSA to consider producing a validation report of planned outage reports versus actuals. A couple of comments from the load side questioned the value of the smaller loads being a part of the IDP.

Many commented on the difficult job of enforcement and felt the MSA was doing what it could, others indicated more could be done. About 9% felt they could not comment on the enforcement issue because they didn't have sufficient information, therefore the MSA needed to do more to inform them on what they were doing in their enforcement role.

6. Analysis

There was clearly a segment of those surveyed who had little familiarity with the TPG or the IDP, as almost 46% rated their familiarity a 2 or 3. This is in addition to the 54 contacted who rated a 1 and consequently could not be surveyed. Those directly involved and impacted were very familiar with the TPG and IDP. Chart 9 shows that large generators and electricity traders are most familiar with average ratings of 4.4 and 5.3 respectively. If the MSA intended to target a broader audience for the TPG, then more communication is needed.

There is strong support for the TPG principle with over 45% rating it a 7 out of 7 including nearly 73% rating it a 5 or greater as shown in Table 1. Also, as demonstrated in Chart 9, all categories averaged more than a 5 rating with the exception of the electricity traders plus some of the large generators. Electricity traders also indicated the least support for the IDP having a material and beneficial impact. The comments reflected an element of a "right to withhold" information from some large generators. There is also some distrust among market participants related to the larger players in the market.

About 36% view the outage reports daily or more frequently. This may indicate the value is best seen by a very specific spectrum of market participants, and others may feel they are not sufficiently active in the market to make a difference.

Responses on the IDP influence on short term and longer term trading decisions varied widely as indicated both by Chart 9 and Table 1, which had the greatest standard deviation for the ratings. Load customers or self retailers rated lowest with an average of 4 on the effective enforcement question while retailers rated the MSA highest with an average of 5.8. However it should be noted that over 40% responded with a "don't know", flagging an area to be addressed, such as improved communication.

Chart 9
Average Ratings by Question & Category

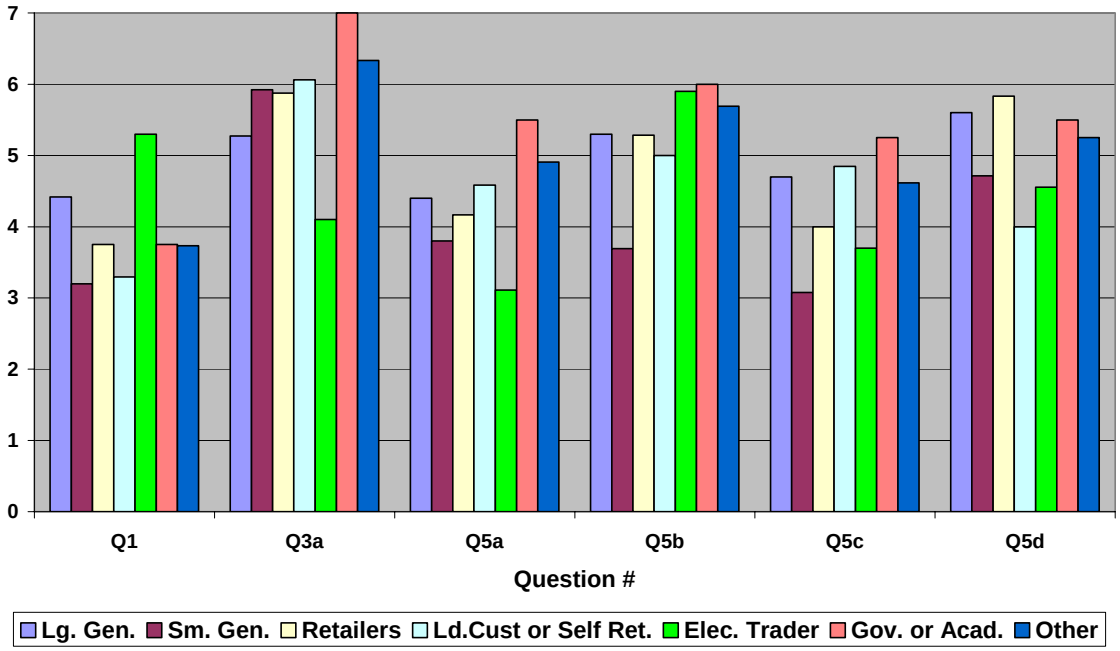


Table 1
Summary of Response Ratings

Q #	Question	Rating %age = or > 5	Rating %age = or < 3	Avg. Rating	Standard Deviation
1	How familiar are you with the MSA's Trading Practices Guideline and the Information Disclosure Procedure	38.6%	45.7%	3.9	1.7
3a	The principle behind the TPG is**, trading with the knowledge of upcoming outages unknown to the market at large, does NOT promote a fair, efficient, and openly competitive market.** On a scale of 1 to 7, where 1 is not at all sound and 7 is extremely sound, how sound would you rate this principle?	72.9%	10.0%	5.8	1.6
5	On a scale of 1 to 7, where 1 is strongly disagree and 7 strongly agree, how would you rate the following statements:				
5a	The TPG Information Disclosure Procedure has had a material and beneficial impact on market confidence and trading decisions.	38.6%	15.7%	4.4	1.6
5b	The outage reports influence *short-term* trading decisions in the market. (short-term trading is defined as trading of same day or next day contracts)	62.9%	14.3%	5.1	1.7
5c	The outage reports influence longer-term trading decisions in the market (longer-term trading is defined as trading in contracts longer than next day, i.e. 1 week, balance of month, next month, next quarter)	45.7%	30.0%	4.4	1.9
5d	The MSA is effectively enforcing the requirements of the Information Disclosure Procedure	40.0%	5.7%	5.1	1.3

7. Conclusion

Of those surveyed, there is clearly a segment of participants very knowledgeable about and impacted by the TPG and IDP, as well as a segment not knowledgeable or impacted. The TPG is strongly supported as a basic principle and as a mandate to be carried forward by the MSA, even by those not familiar with the details of the topic. There are exceptions for those who benefit from non-disclosure of the published outage reports, however they are in the minority. It appears the TPG has been successful in reaching its objective for the first 12 months of operation and the participant feedback supports the IDP as well as an expectation for improvement in enforcement in the upcoming year.

8. Appendix

Appendix A: Questionnaire

MSA
Participant TPG Questionnaire

Introduction:
Hello, my name is _____ and I'm calling on behalf of the Alberta Market Surveillance Administrator. The MSA is gathering stakeholder feedback in concert with an overall assessment of the Trading Practices Guideline (TPG) and the Information Disclosure Procedure (IDP). Your comments will be confidential and the aggregate results of the survey will be included in the MSA's overall assessment report. We will provide notification when the final report is available. The responses you provide will be analyzed and presented only in aggregate form to the MSA. Do you have 5 minutes to answer a few questions?

YES ___ Thank you. (Go to Script)
NO___ Could I follow up with you at a more convenient time ?
YES ____ When would be a good time? Date: _____ Time: _____
NO ____ Thank you very much. (Terminate Call)

Questions:

1. On a scale of 1 to 7, where 1 is not at all familiar and 7 is extremely familiar, how familiar are you with the MSA's Trading Practices Guideline (TPG) and the Information Disclosure Procedure (IDP) ?

1 2 3 4 5 6 7 DK (Don't Know)

Rating of 1: Terminate Call, Go to Close
Rating greater than 1: Go to Question #2.

2. Which of the following categories best describes your business unit ?
(Interviewer prompt: Business as in their interaction with the market)
   a. Large Generator (>500 MW) □
   b. Small Generator (<500 MW) □
   c. Retailer □
   d. Load Customer or Self-retailer □
   e. Electricity Trader □
   f. Government or Academic □
   g. Other □ Specify category:
   _____

3.

a. The principle behind the TPG is, **trading with the knowledge of upcoming outages unknown to the market at large, does NOT promote a fair, efficient, and openly competitive market**. On a scale of 1 to 7, where 1 is not at all sound and 7 is extremely sound, how sound would you rate this principle:

1 2 3 4 5 6 7 DK (Don't Know)

b. Could you provide comments on why you gave a ___ rating?

_____
_____
_____
_____
_____
_____

4.

a. An outcome of the IDP is published outage reports by the AESO, which were initiated by the MSA. Are you aware of these published outage reports? (interviewer note: reports now published by AESO)

Yes No

b. If yes, how regularly do you view them ?

Never Occasionally Daily More than once per day

5. On a scale of 1 to 7, where 1 is strongly disagree and 7 is strongly agree, how would you rate the following statement:

a. The TPG Information Disclosure Procedure has had a material and beneficial impact on market confidence and trading decisions.

1 2 3 4 5 6 7 DK (Don't Know)

b. The outage reports influence *short-term* trading decisions in the market (interviewer note: short-term trading is defined as trading less than _____ hours/days)

1 2 3 4 5 6 7 DK (Don't Know)

c. The outage reports influence *long-term* trading decisions in the market (interviewer note: long-term trading is defined as trading more than _____ hours/days)

1 2 3 4 5 6 7 DK (Don't Know)

d. The MSA is effectively enforcing the requirements of the Information Disclosure Procedure.

1 2 3 4 5 6 7 DK (Don't Know)

e. Can you provide any additional comment or feedback on why you provided the ratings you've given:

_____
_____
_____
_____
_____
_____
_____

6. Are there any additional comments you would like to offer the MSA on the Trading Practices Guideline or the Information Disclosure Procedure?

_____
_____
_____
_____
_____
_____
_____

7. Would you like the MSA to follow up with you on any of the comments you've supplied today?

YES: How would you like the MSA to contact you?
Name: _____ Email: _____Tel: _____

Go to Close

NO: Go to Close

Close: Thank you very much for your time. The MSA appreciates your input and time and expects to publish its review of TPG and IDP in August. Good-bye.