

# Demand Forecast Used by Pre-Dispatch

Market Pricing Working Group  
August 5, 2005



- **Issue originated as one of several reasons for differences between PD price and HOEP.**
  - Use of average demand forecast would have a lowering effect on the PD price and may result in a PD price closer to the HOEP price.
- **Also, imports/exports are scheduled to meet the peak demand which may occur in as few as one interval**
  - Other intervals may therefore have excess imports (and/or fewer exports) and less efficient dispatch.

- **Peak demand forecast is used in PD to allow sufficient resources to be scheduled to meet the peak of the hour – a reliability issue.**
- **MPWG issue paper suggests that the use of average demand forecast may be appropriate in some hours where the reliability concern may be less significant.**

- **This issue has been raised again due to some recent periods of “Unutilized Baseload Generation” (UBG), with the thought that the use of peak demand in the PD forecast has caused/exacerbated UBG.**
  - **The statistics indicate that there is little difference between peak and average forecasts in the early morning hours**
  - **Export failures in these hours have had a far more significant impact on UBG**

# Stats on Peak vs. Average

**Table 1:**  
***Difference between (Actual) Peak Demand and Average Demand for each Hour***

The study period is from Jan 2004 to May 2005

Hour	Average diff for the Hour in study period	Number of hours with diff greater than 150MW	Number of hours with diff greater than 250MW	Percentage of hours with diff greater than 250MW
1	259	436	268	52%
2	161	260	42	8%
3	111	93	5	1%
4	103	69	6	1%
5	222	298	60	12%
6	459	433	364	70%
7	551	472	448	87%
8	347	424	381	74%
9	212	274	180	35%
10	154	201	64	12%
11	114	88	16	3%
12	113	90	7	1%
13	116	100	6	1%
14	116	91	9	2%
15	113	90	8	2%
16	148	200	48	9%
17	269	268	178	34%
18	258	370	196	38%
19	209	309	140	27%
20	198	347	122	24%
21	274	444	262	51%
22	473	490	471	91%
23	524	491	487	94%
24	415	491	471	91%

**Table 2:**  
**Export Failures for each Hour**

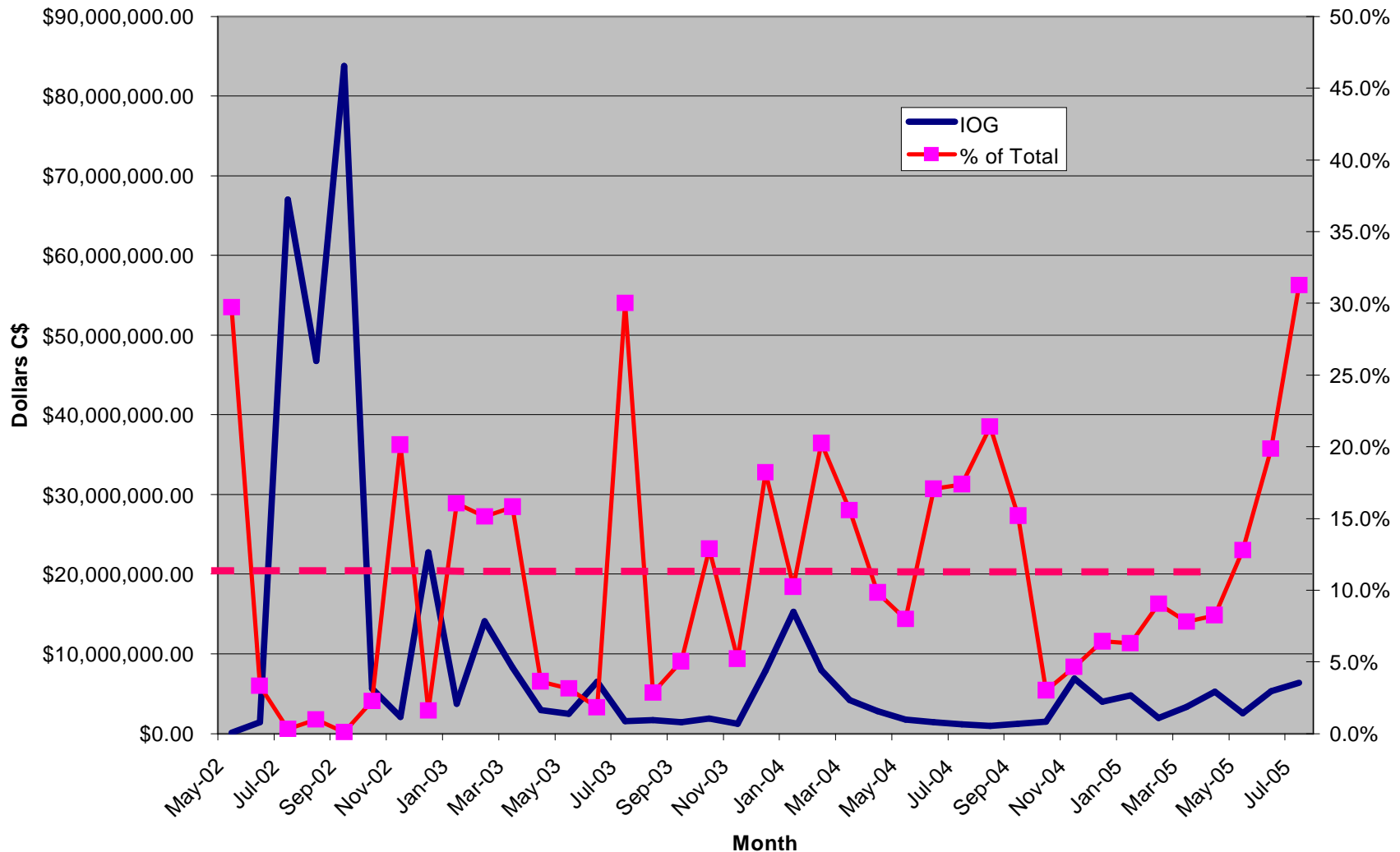
The study period is from  
Jan 2004 to May 2005

Hour	Average Amount (MW) of Export Failures for the Hour in the study period	Number of hours with export failures greater than 150MW	Number of hours with export failures greater than 250MW	Percentage of hours with export failures greater than 250MW
1	115	135	85	16%
2	129	160	105	20%
3	162	203	135	26%
4	137	182	120	23%
5	124	157	93	18%
6	105	125	72	14%
7	81	104	55	11%
8	69	91	40	8%
9	76	90	45	9%
10	95	117	62	12%
11	130	162	100	19%
12	128	160	97	19%
13	115	143	81	16%
14	132	175	103	20%
15	139	168	98	19%
16	125	153	95	18%
17	100	130	66	13%
18	96	109	63	12%
19	82	92	62	12%
20	74	88	48	9%
21	79	102	50	10%
22	109	145	84	16%
23	126	169	93	18%
24	125	156	90	17%

- **The Intertie Offer Guarantee (IOG) is a premium paid to enhance reliability**
  - Removes price risk for importers which allows IESO to schedule enough imports to meet the peak demand in the hour.
- **In hours where the reliability concern is reduced:**
  - It may be sufficient to schedule imports based on the average demand.
  - It also may not be necessary to pay the premium for imports (IOG).

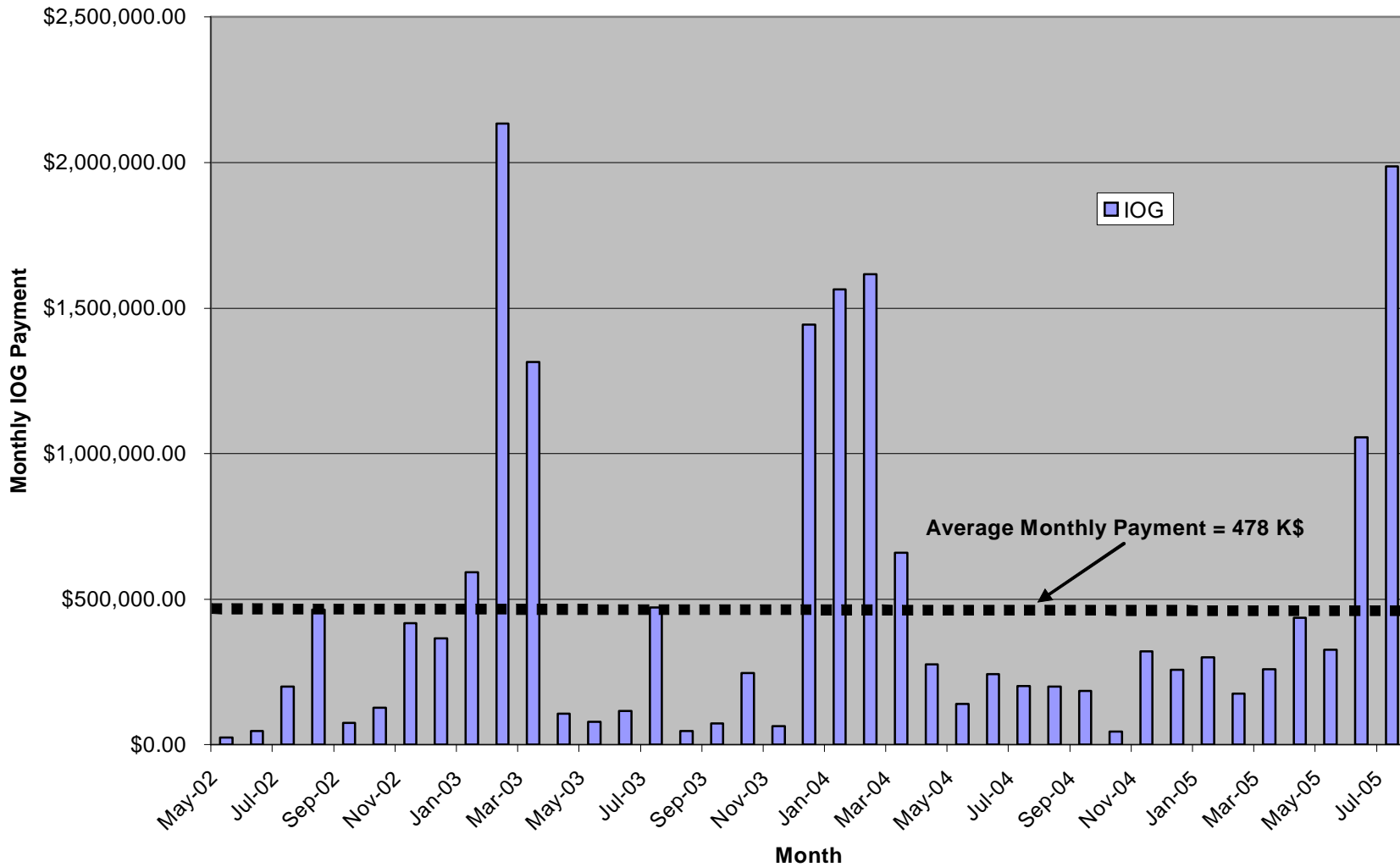
# Total Monthly IOG Payments and % hr 24 thru hr 5

Total IOG Payment versus % paid hrs 24 thro 5



# IOG Payments Hrs 24 thro Hr 5

Monthly IOG payment for Hrs 24 and hrs 1 - 5



## **Average versus peak demand**

- **Recognition by exporters / importers of more upward volatility in RT price compared to the PD price forecast**
- **Will factor that into their offers / bids**
- **Less likelihood of UBG as a result of over buying**
- **Reductions in IOG's and possibly CMSC's??**

## **Removal of IOG payments**

- **Will tend to create more “linked wheels” where if the export leg fails the import leg will also be removed**
- **Better “dispatch” for internal generators and better market efficiency**
- **Potentially less likelihood of “over buying” imports leading to “UBG”**
- **Roughly 4 cents / Mw-hr reduction in Uplift due to no IOG payments**

- **IESO will draft a recommendation for discussion at the September meeting.**
- **This recommendation will be further refined based on that discussion.**
- **Polling on a recommendation to occur at the October meeting.**