EILS Update

ERCOT Staff Update to WMS

October 21, 2009

Contents

- **Procurement results: Current & historical**
- **Price comparison: EILS to Ancillary Services**
- **Compliance update**
- **Recap of VOLL discussion**

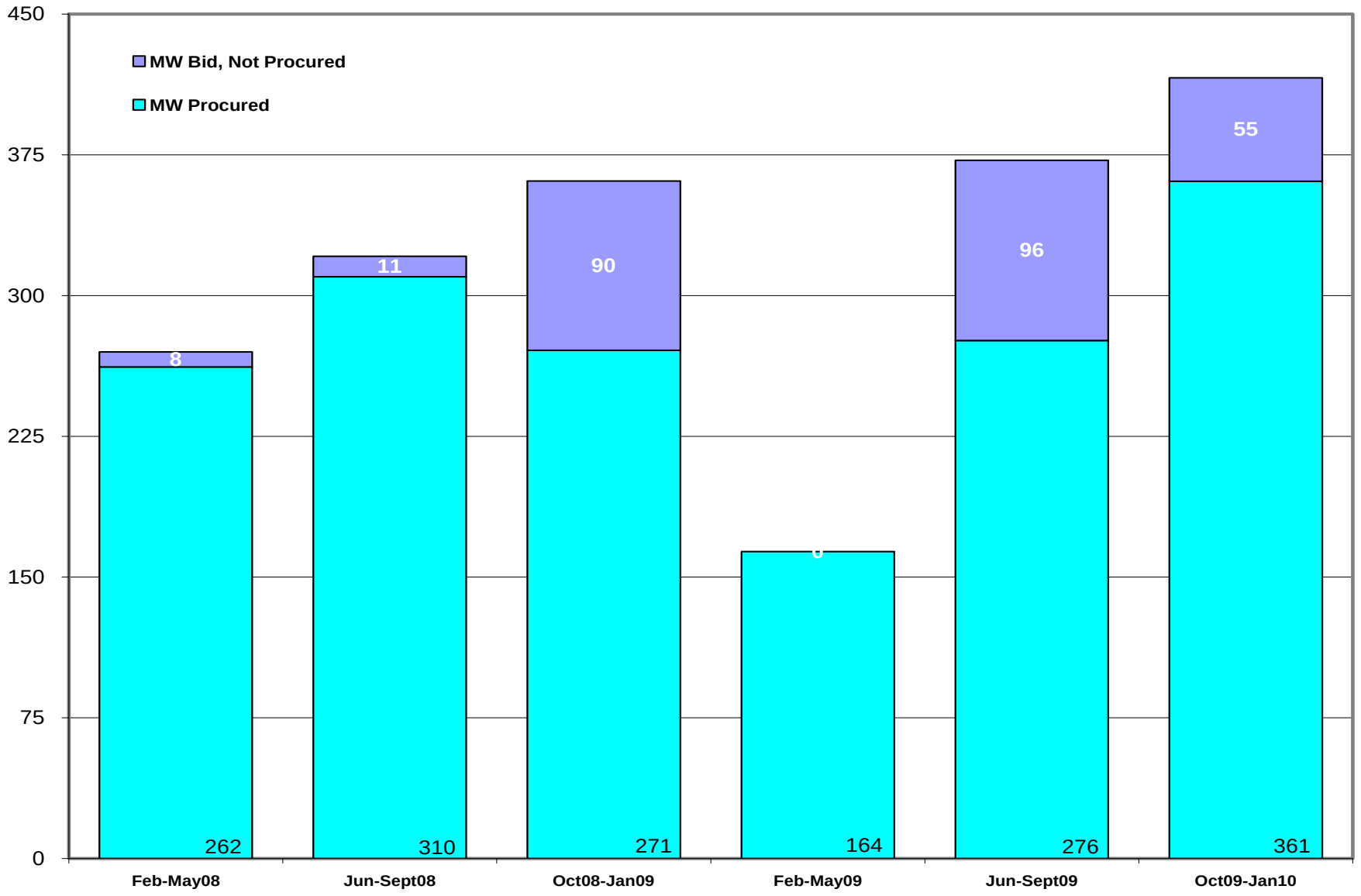
Current Bid Cycle

- **Oct. 2009 – Jan. 2010 Contract Period Procurement Results**

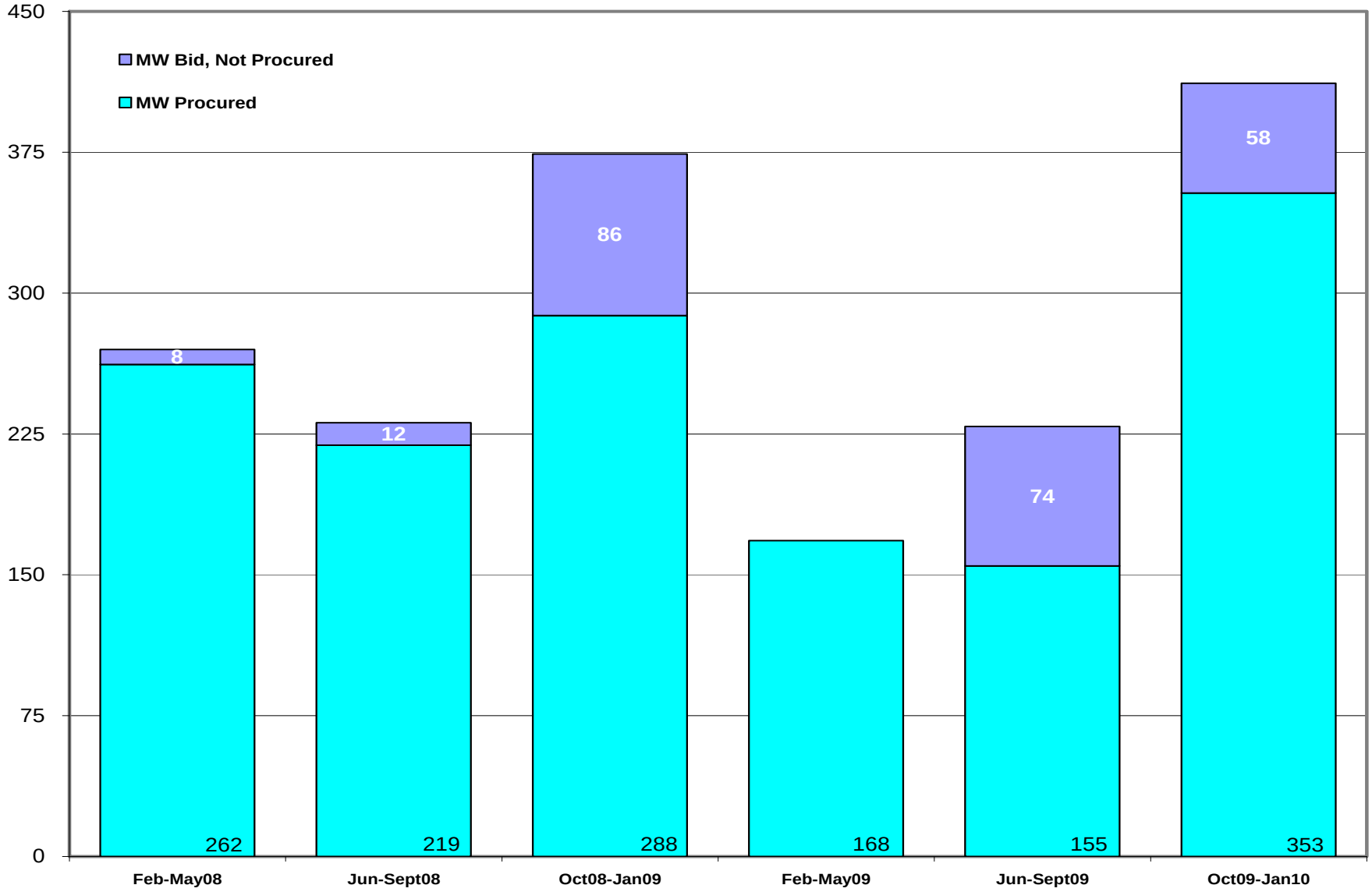
Time Period	Business Hours 1	Business Hours 2	Business Hours 3	Non-Business Hours
Definition	**8 AM to 1 PM** Mon-Fri except Holidays	**1 PM to 4 PM** Mon-Fri except Holidays	**4PM to 8 PM** Mon-Fri except Holidays	**All other hours**
EILS Procured	**360.9 MW**	**353.3 MW**	**268.0 MW**	**334.5 MW**
# of EILS Resources	**61** (includes 37 aggregations)	**59** (includes 35 aggregations)	**75** (includes 46 aggregations)	**55** (includes 35 aggregations)
Avg. Cost per MW per Hour	**$ 8.02**	**$ 8.12**	**$ 8.87**	**$ 7.77**

- **Projected cost for this Contract Period: $ 7.79 million**
- **Max. cost for 2009 program year: $18.35 million**

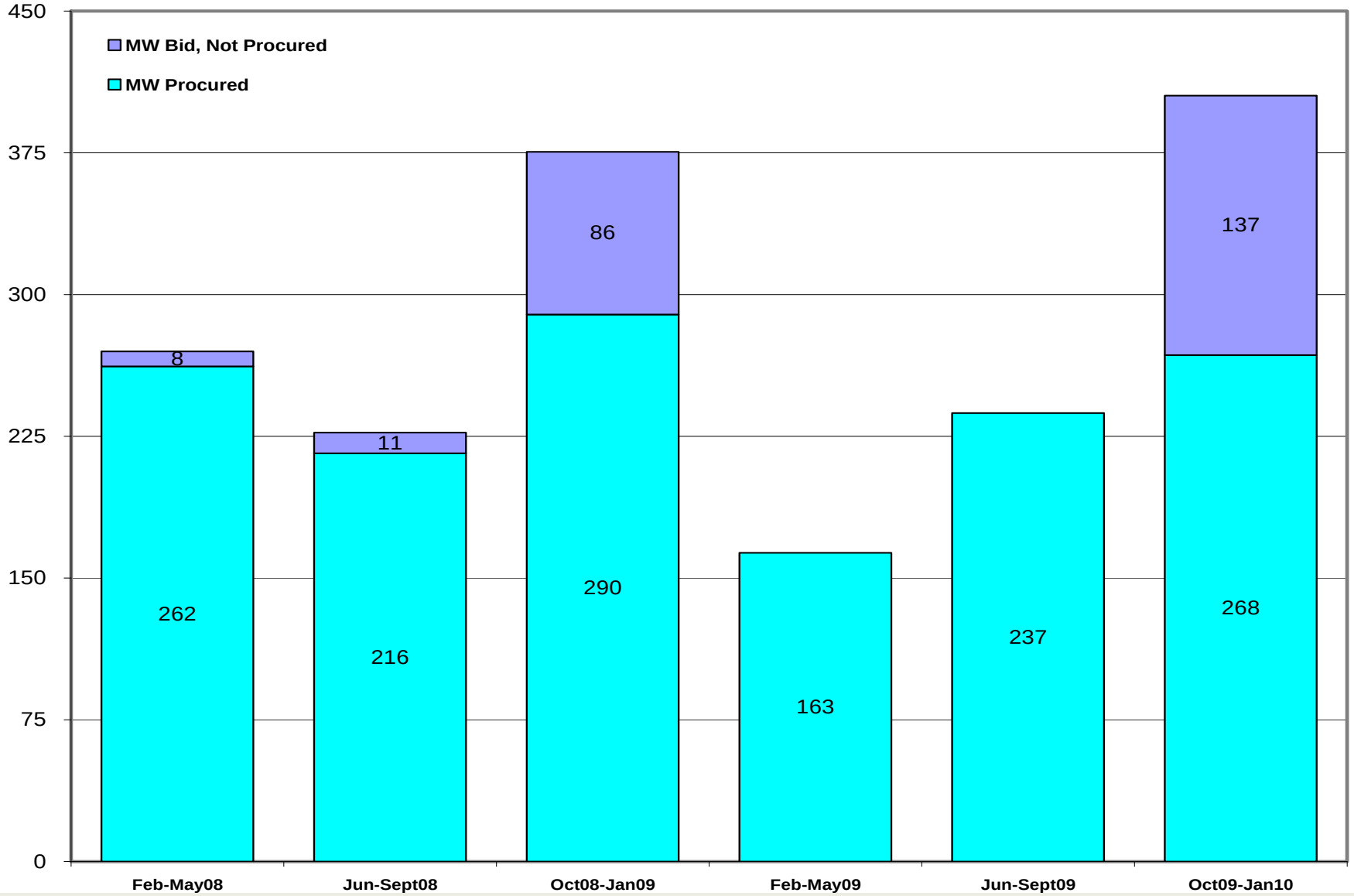
EILS Procurement Trends (Business Hours 1)



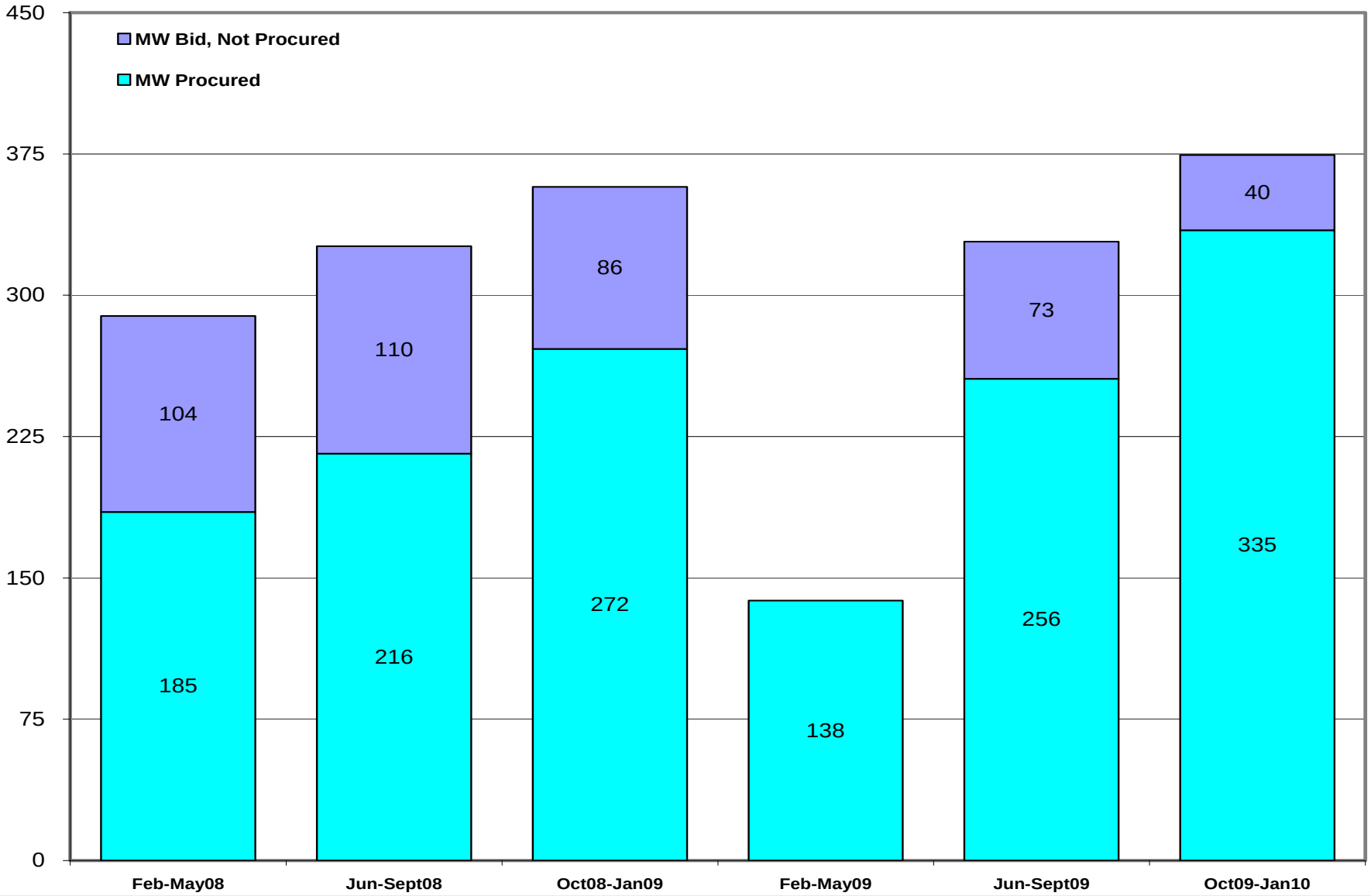
EILS Procurement Trends (Business Hours 2)



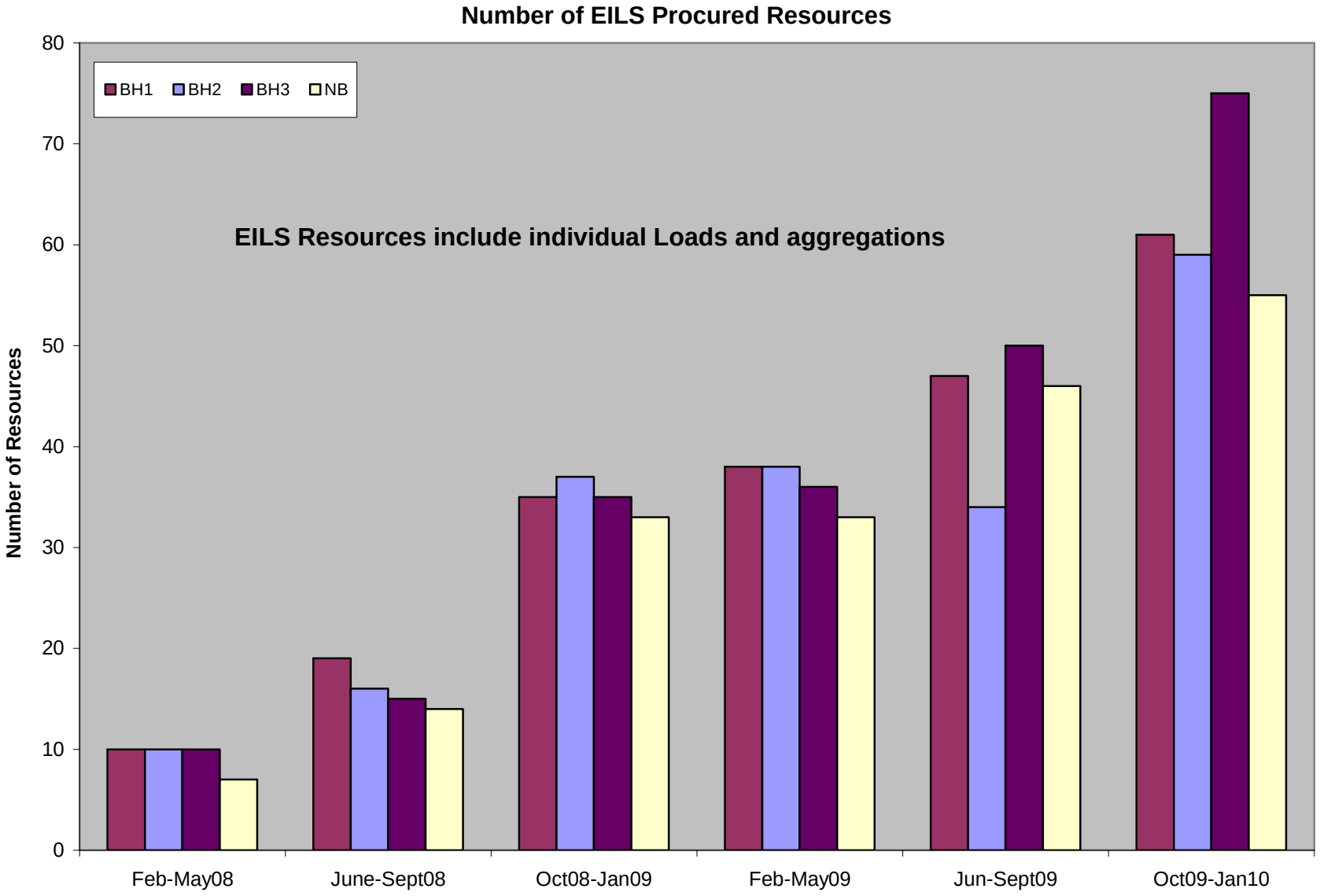
EILS Procurement Trends (Business Hours 3)



EILS Procurement Trends (Non-Business Hours)

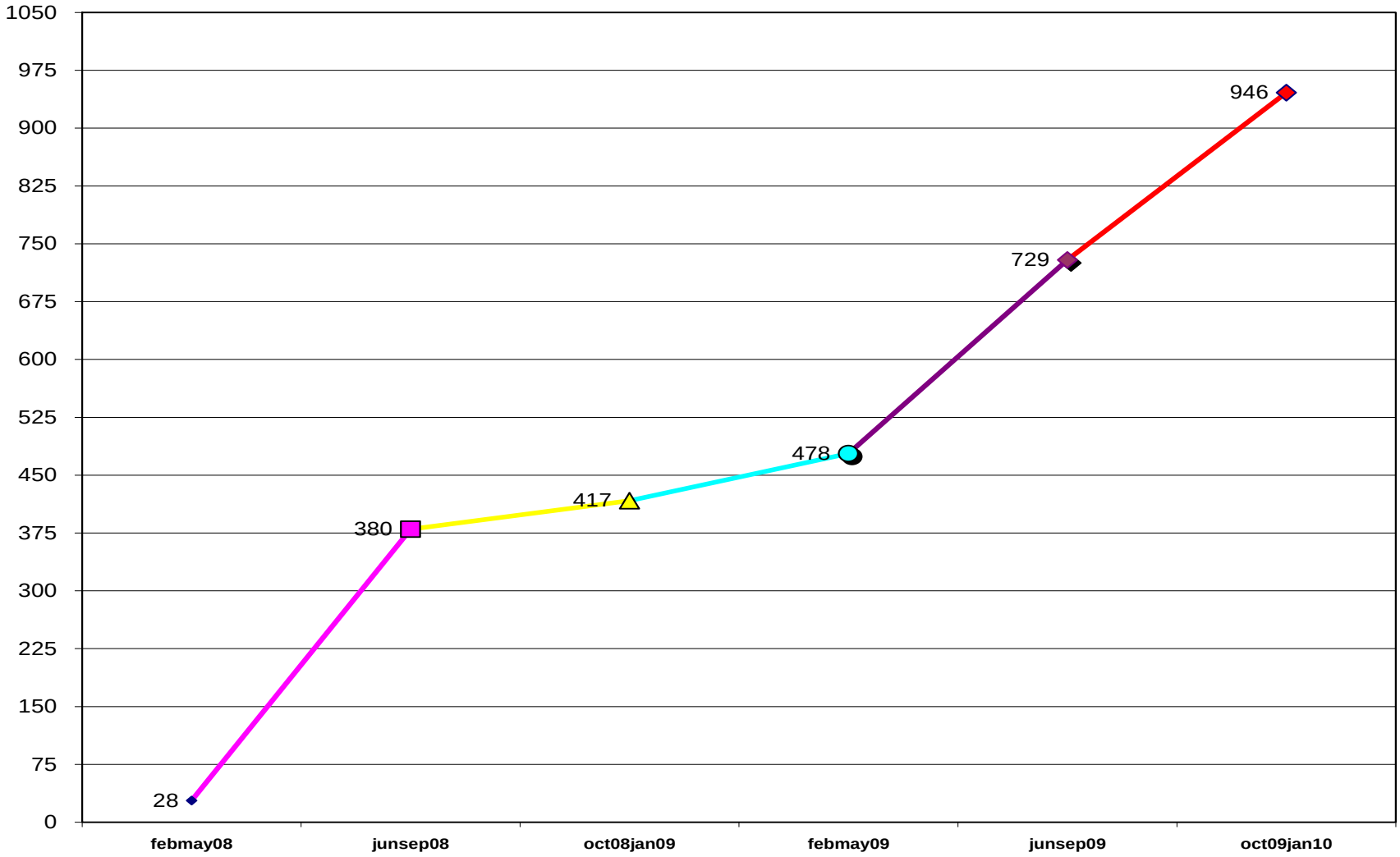


EILS Procurement Trends (Number of Resources)

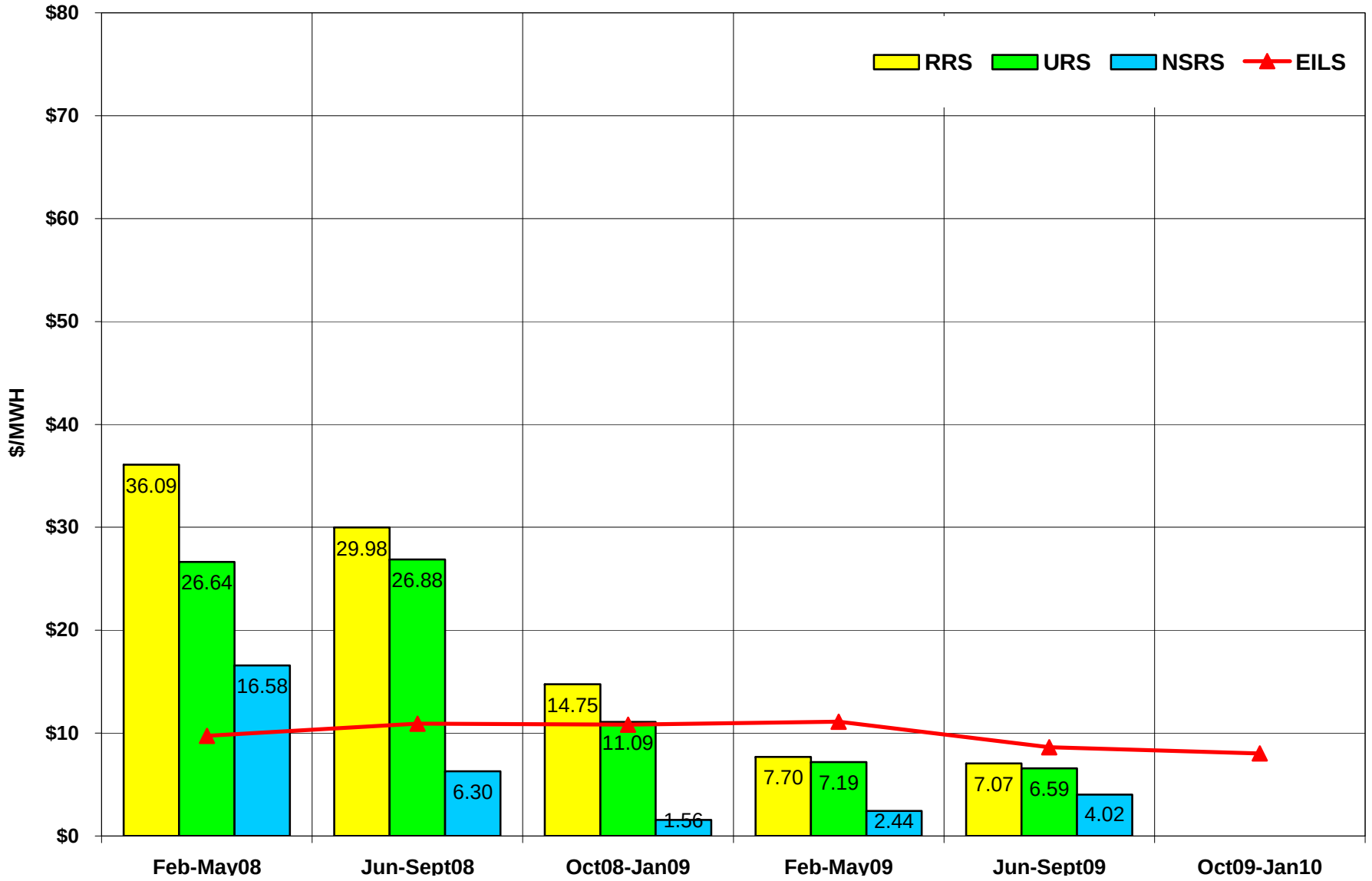


EILS Procurement Trends (Number of Loads)

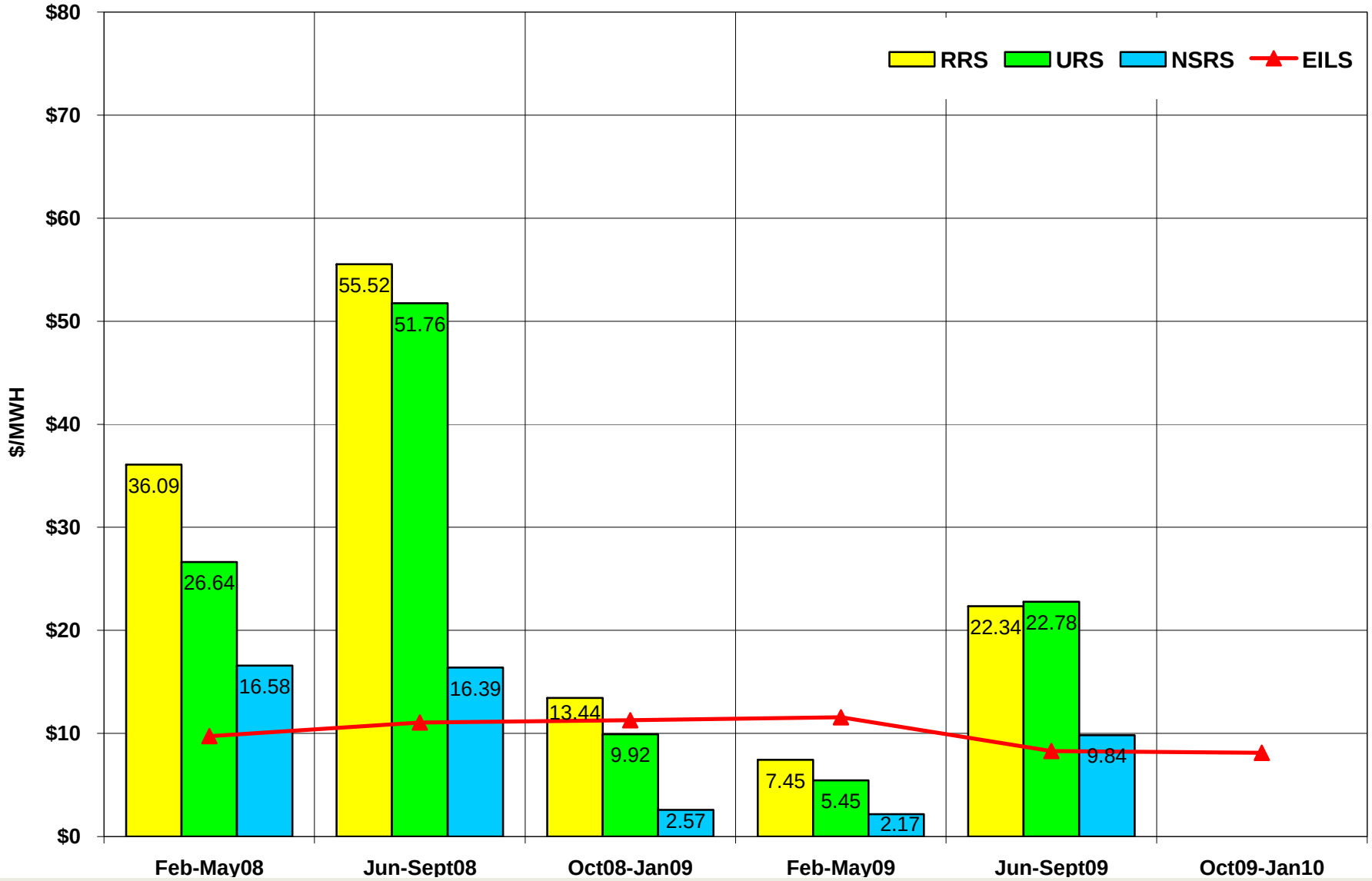
- **Cumulative unique ESI IDs offered into EILS**



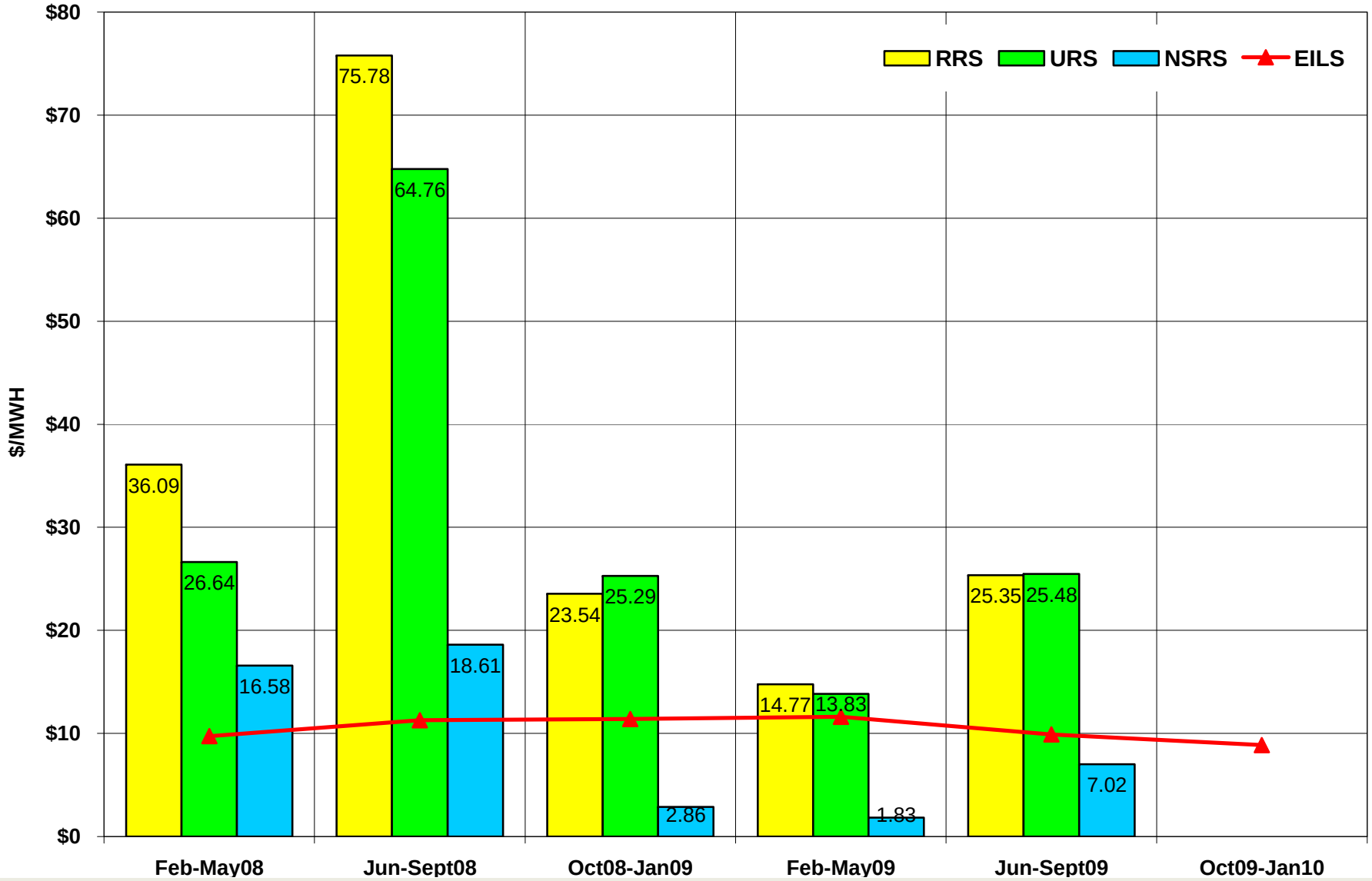
A/S Price Comparison: Business Hours 1



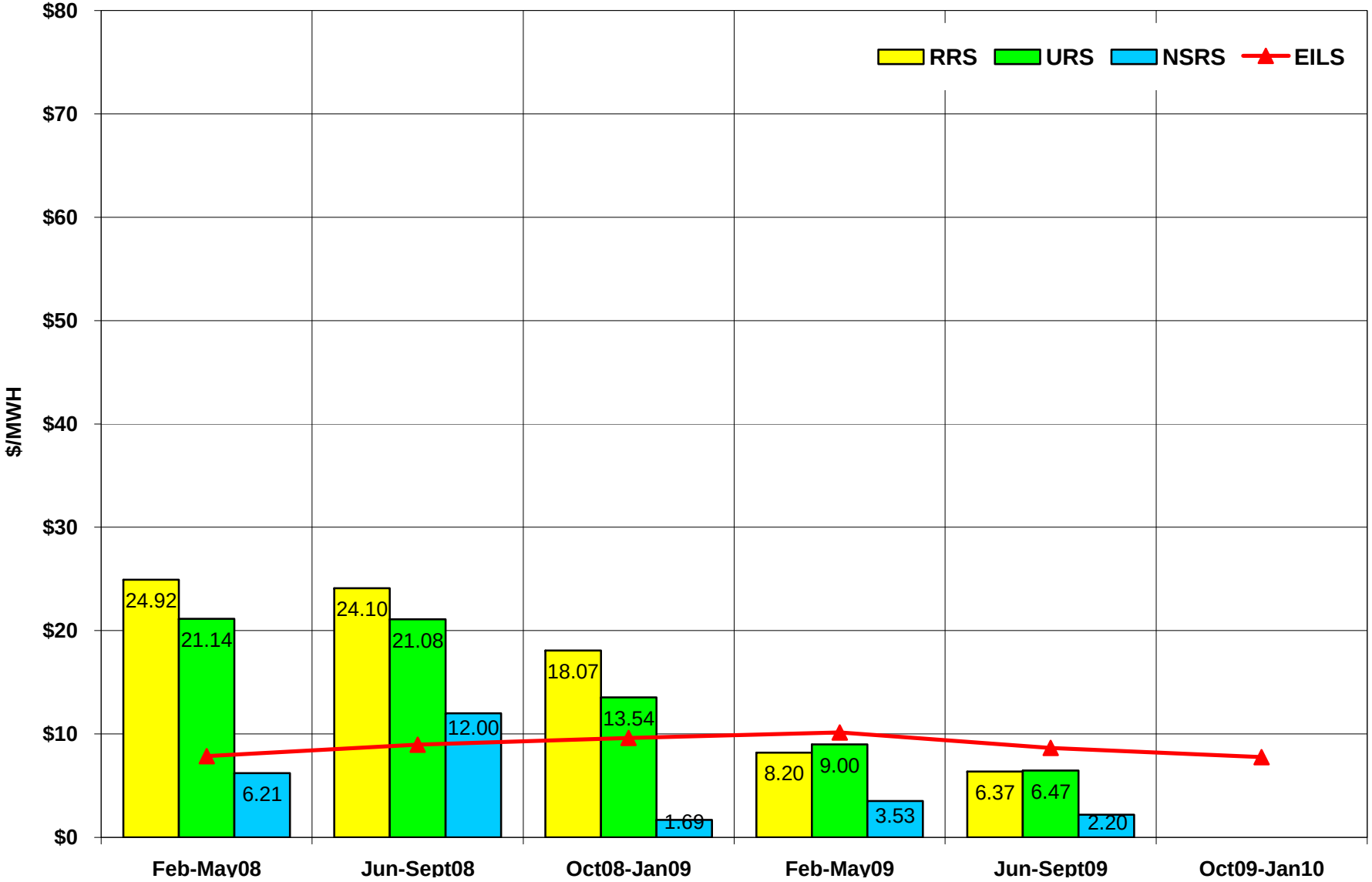
A/S Price Comparison: Business Hours 2



A/S Price Comparison: Business Hours 3



A/S Price Comparison: Non-Business Hours



Compliance

- **Subst. R. 25.507 (e)**
  - (e) Compliance. QSEs representing EILS resources are subject to penalties for failure to meet their obligations under this section. ERCOT shall withhold all or part of an EILS resource's capacity payment for a contract period **and suspend participation in EILS for six months** if the EILS resource fails to make its committed load available during its committed hours, or fails to meet its load reduction obligations in an EILS deployment event. In order to be reinstated after the suspension the load must demonstrate its capability of performing the service by satisfactorily performing a test conducted by ERCOT.
- **Suspensions apply to all Time Periods, not just those in which the EILS Resource failed**
- **Suspensions apply to all Loads within an aggregation**
  - ERCOT does not have tools to determine which Loads caused an aggregation to fail

Compliance (cont.)

- **12 EILS Resources totaling ~38 MW are currently suspended due to availability factors of <95% from Feb.-May ’09 Contract Period**
  - Overall fleet availability for Feb.-May ’09 = 93%
- **EILS Resources with availability factors of <95% also have their payments reduced by the corresponding amount**

- **Availability reviews for June-September 2009 Contract Period will be completed by Nov. 14**

Value of Lost Load discussion

EILS Costs & Benefits

- **In August, VP of System Operations Kent Saathoff briefed the ERCOT Board responding to questions raised earlier about EILS costs and benefits**

- **The same issue had been raised in early 2007 when EILS Protocols were being considered**

- **ERCOT Staff's response to a series of questions posed by PRS included a discussion of EILS in the context of Value of Lost Load (VOLL)**
  - Full response is posted to PRS meeting web page for Feb. 22, 2007
  - Summarized here

Value of Lost Load

- **ERCOT Staff analyzed several VOLL studies from other markets**
- **VOLL estimates range from $2,240 / MWh to $20,000 / MWh**
- **Based on methodologies from the 2003 Northeast Blackout, direct VOLL for the April 17, 2006, ERCOT load shedding event can be estimated at between $14.8 million and $22.4 million**
- **VOLL is a mathematically-calculated estimation of direct economic loss due to loss of electric service**
- **VOLL does not capture broader, intangible societal costs associated with firm load shedding that are very difficult to quantify in monetary terms, such as:**
  - Potential risk to human health and safety posed by blackouts
  - Effect on consumer confidence in the electric grid and market
  - Negative national publicity to the region
  - Financial and business communities' outlook with potential impacts to future economic development and gross domestic product

Cost of EILS

- **In its first two program years EILS will incur a total maximum cost of $34.9 million, under a two-year cost cap of $100 million**
- **Assuming EILS would only be used in potential loss of load events that statistically could occur approximately once in ten years, it would not be justified based on VOLL alone**
- **However, since VOLL does not quantify all the intangible costs of a loss of load event, EILS can be viewed in a broader context as an additional hedge against firm load shedding**

EILS Additional Value

- **The PUCT expanded the EILS mission in the 2007 rule amendments:**

- **'The commission … finds value in having resources that have not participated in demand response programs being enabled to do so by this program. The commission encourages ERCOT to make an effort to attract such customers to the program.'**
- **'The commission … agrees … that it is in the public interest for the commission to expand the scope of demand-response through the implementation of EILS.'**

-- Preamble to the Order adopting amendments
to Subst. Rule §25.507, Nov. 1, 2007
(Project 34706)

- **Additional points:**
  - Any significant changes to or discontinuation of EILS will require revision of PUC Subst. Rule §25.507
  - ERCOT Staff is open to any suggestions to modify or improve the program within the parameters of the PUCT Rule
  - Demand Side Working Group is an appropriate stakeholder forum for such dialogue

Questions?