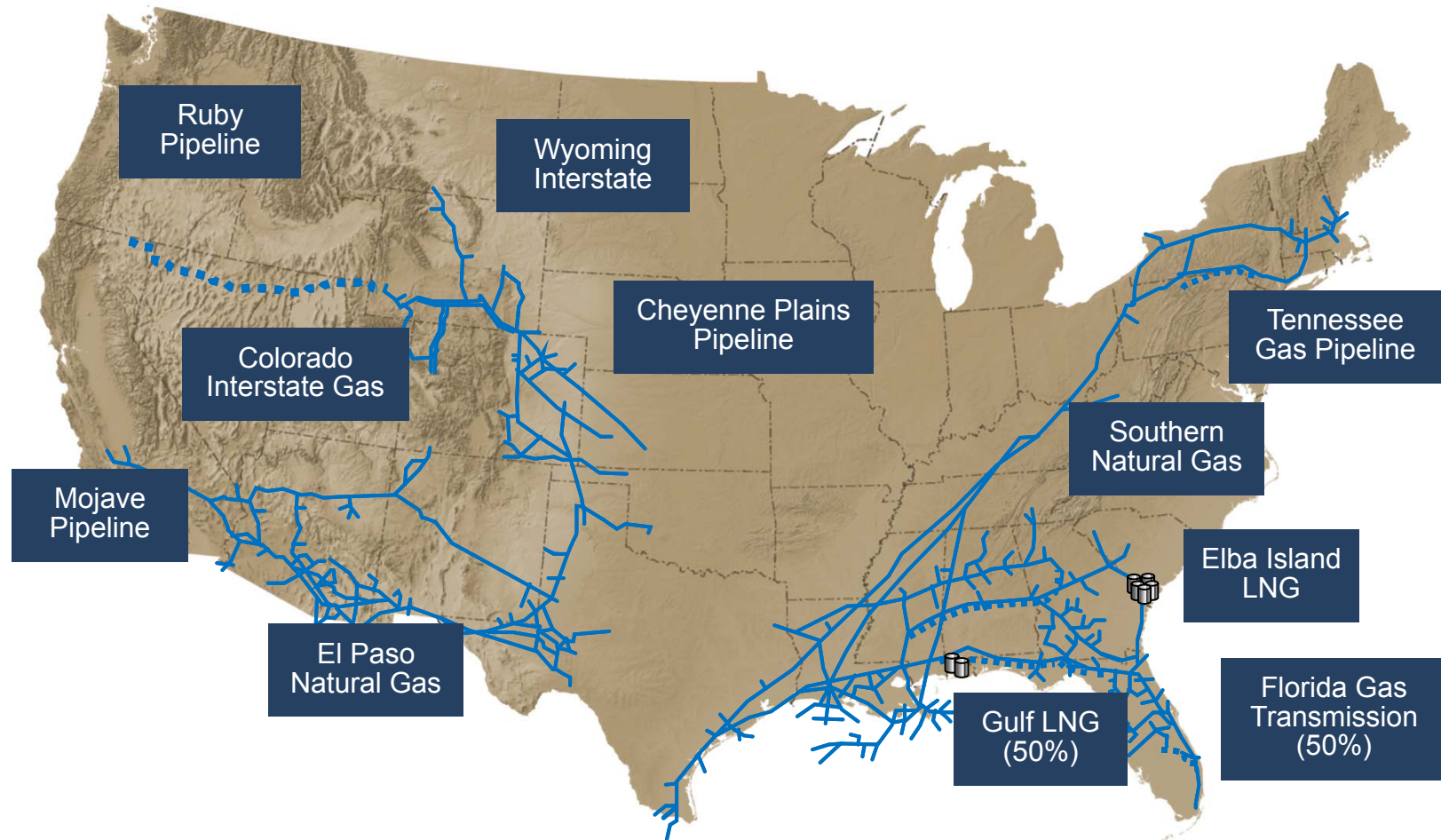


Tennessee Gas Pipeline Company
ISO NE Presentation
March 24, 2011



El Paso Pipeline Franchise



- ⤴ 19% of total U.S. interstate pipeline mileage
- ⤴ 26 Bcf/d capacity (12% of total U.S.)
- ⤴ 18 Bcf/d throughput (28% of gas delivered to U.S. consumers)

Tennessee Gas Pipeline

13,800 miles

1,000 meters

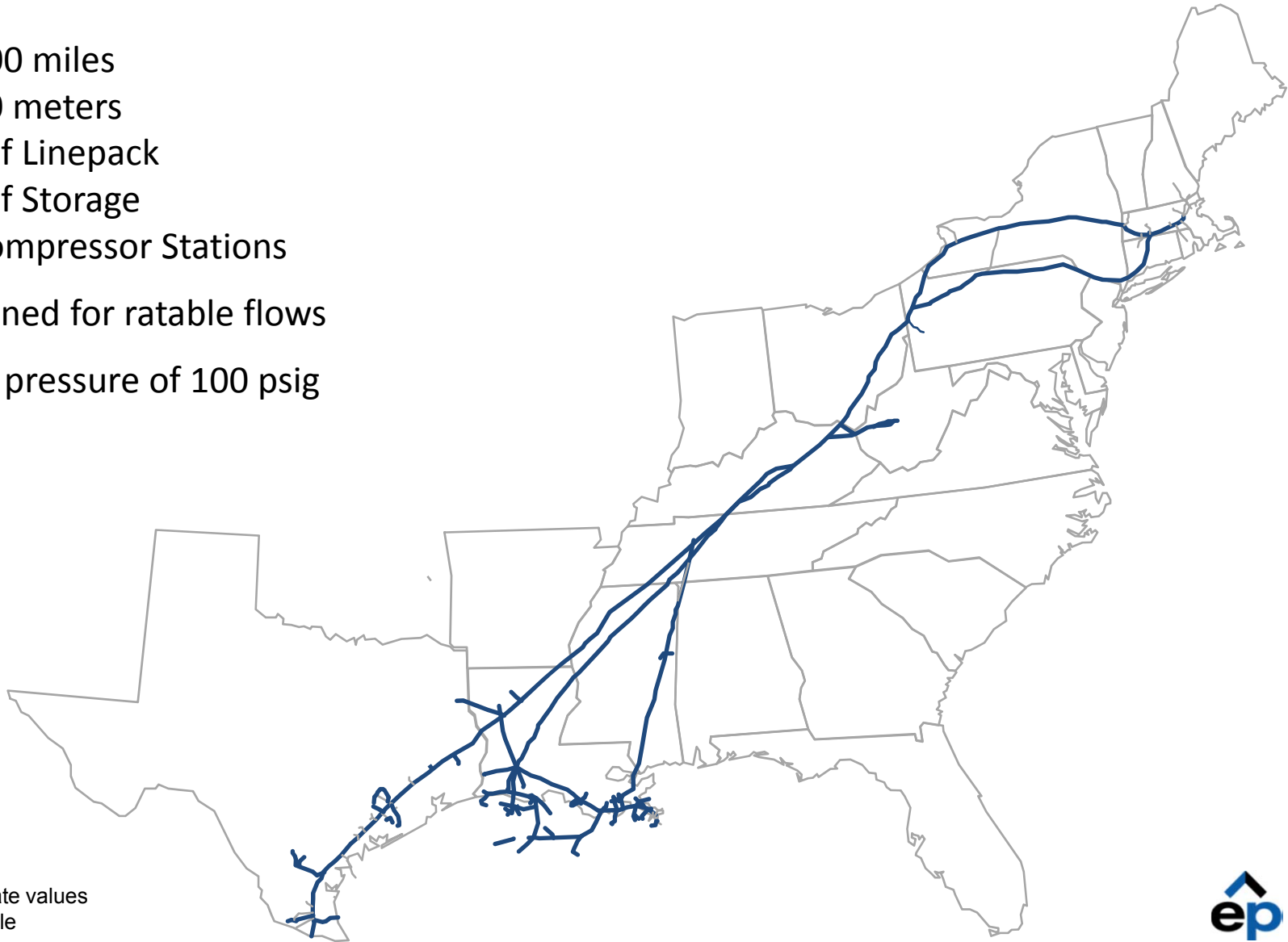
12 Bcf Linepack

90 Bcf Storage

72 Compressor Stations

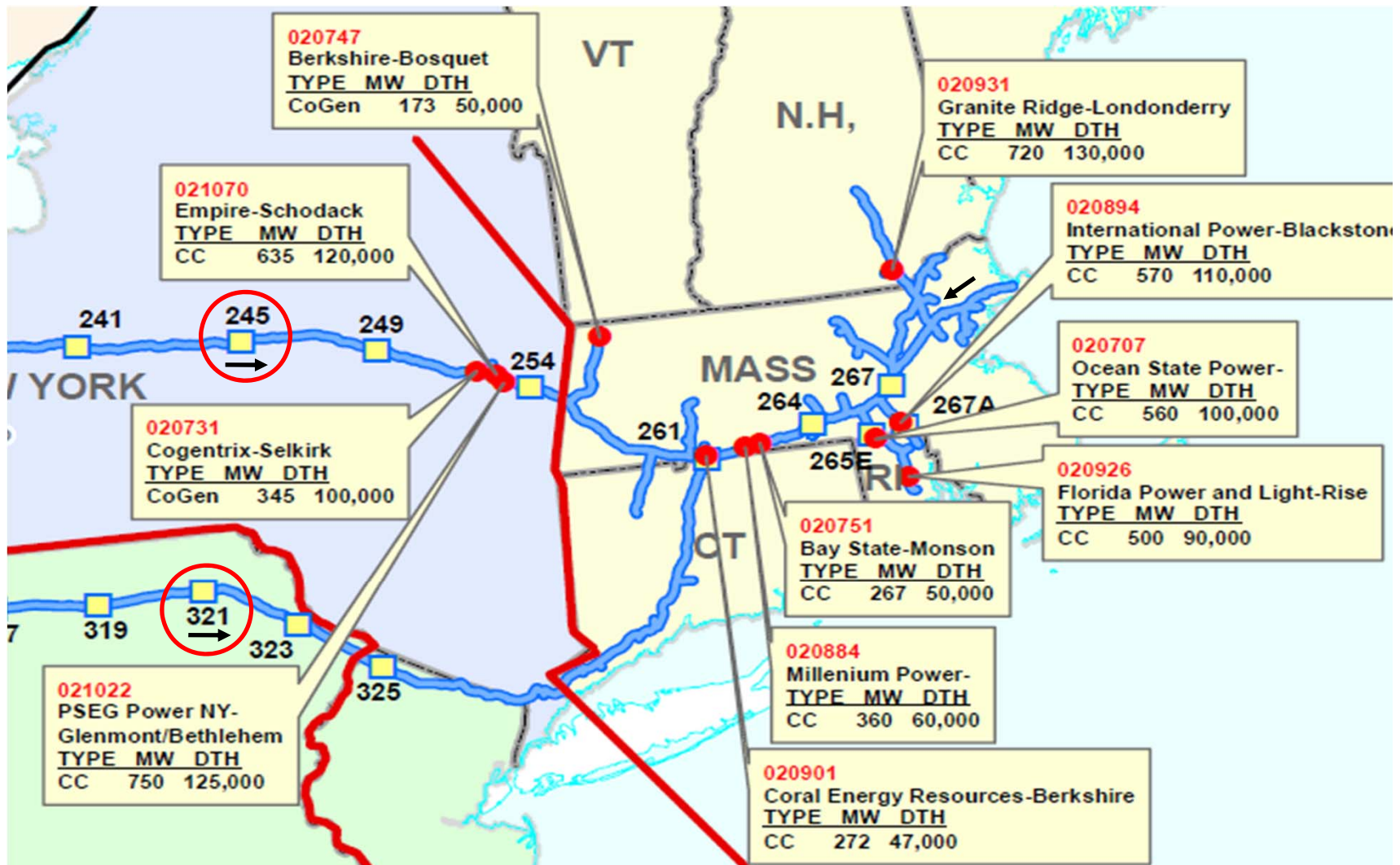
Designed for ratable flows

Tariff pressure of 100 psig

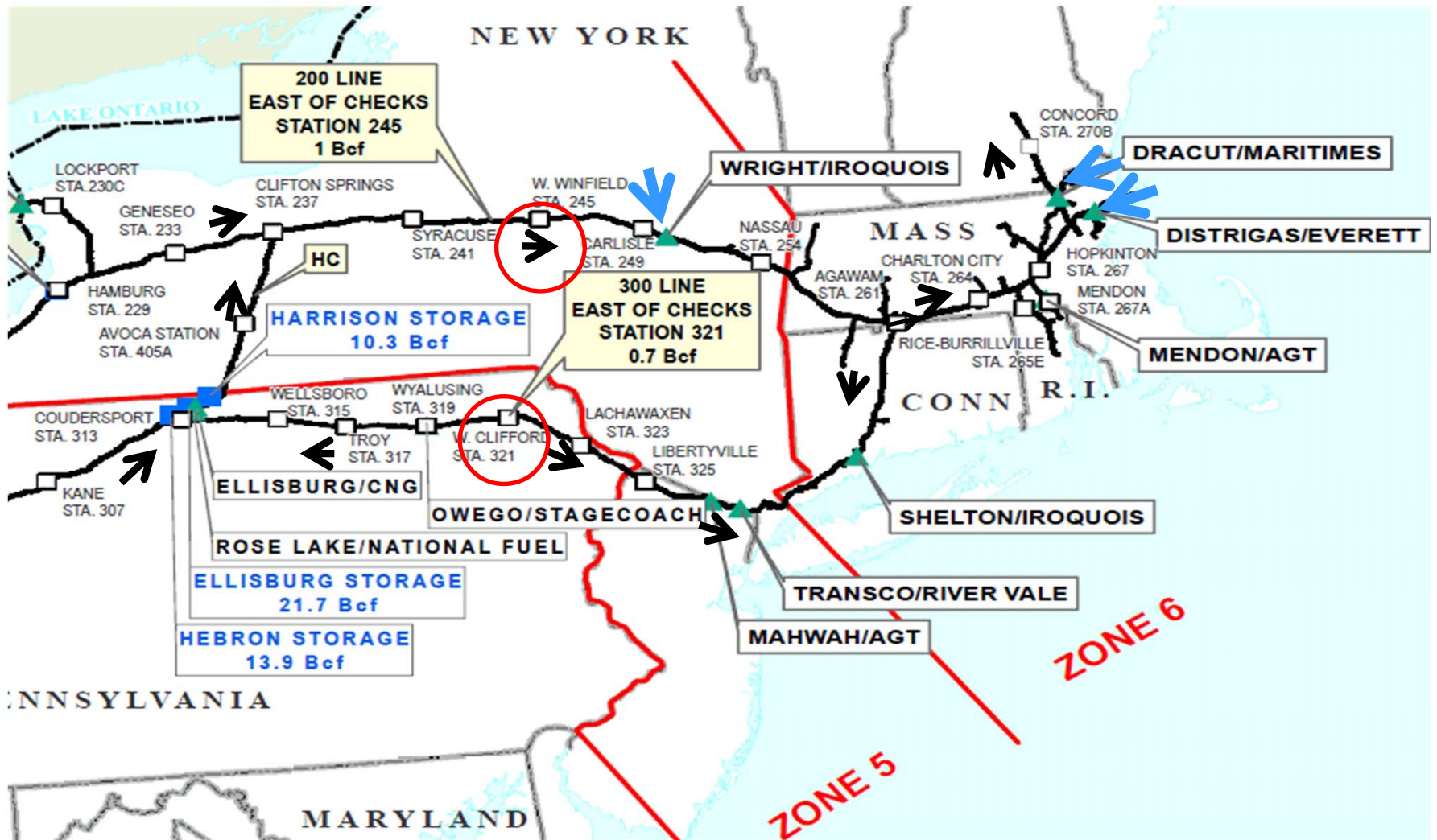


Approximate values
Not to Scale

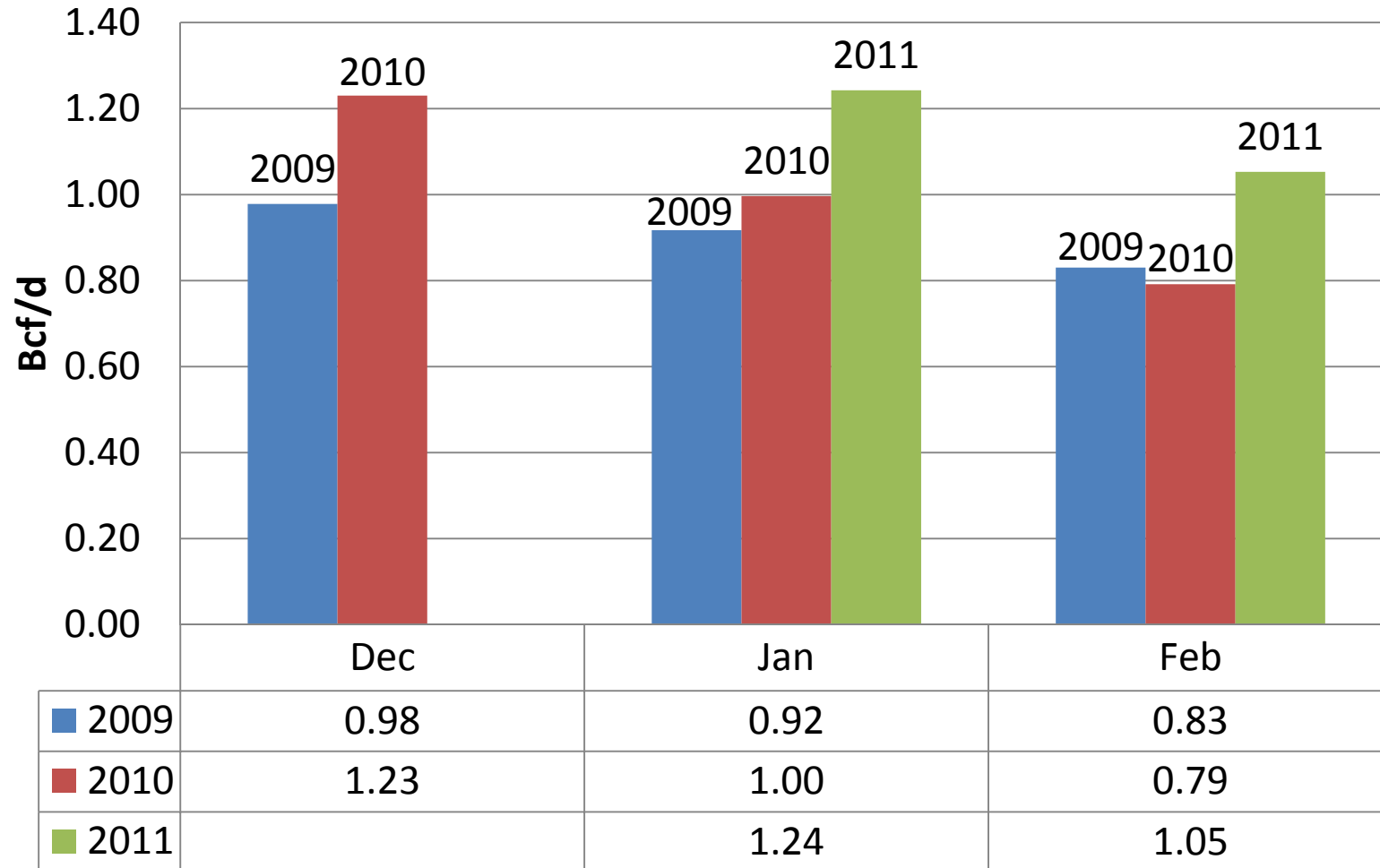
Zone 5 & 6 Power Plants



TGP Zones 5 and 6



Power Plant Demand (Dec-Jan-Feb)



General Parameters

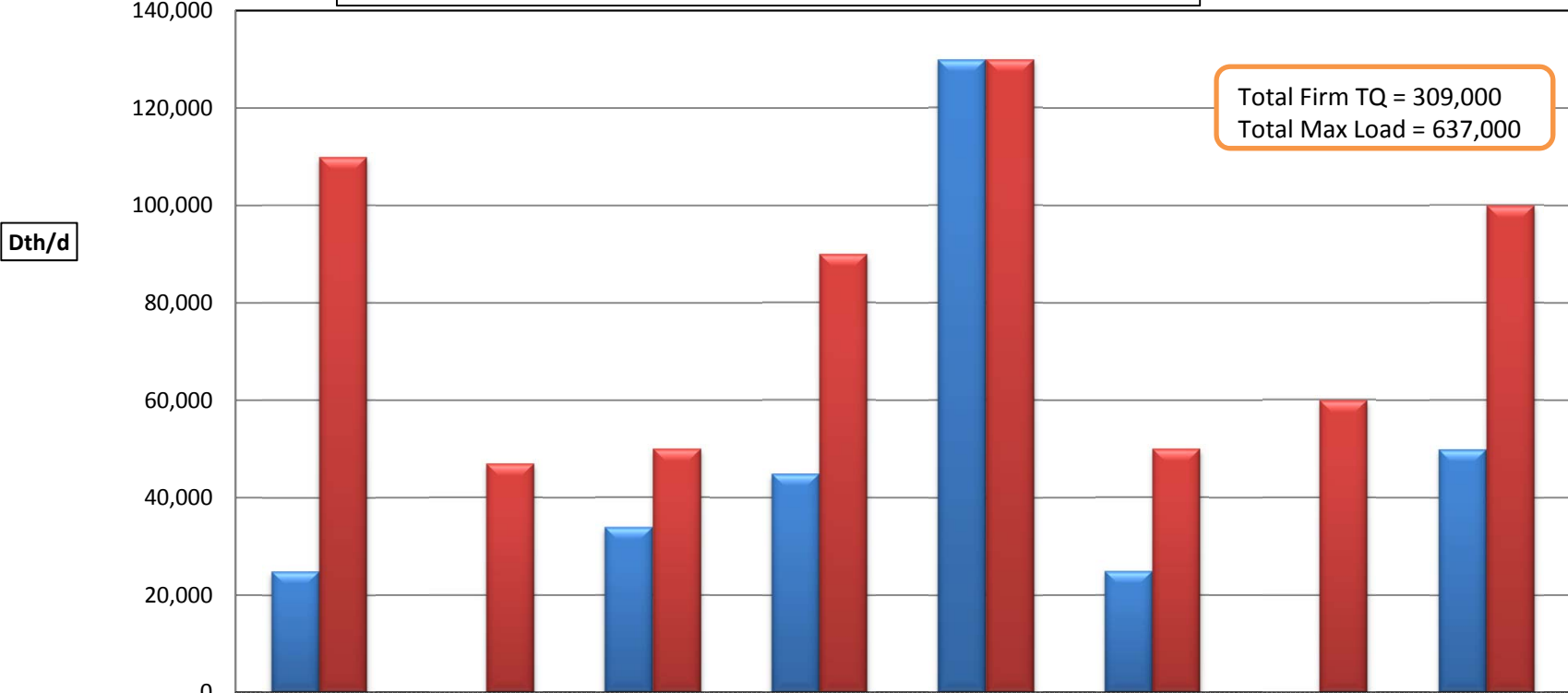
- TGP has asked for daily and hourly burn profiles (FERC Order 698)
 - Provide burn profiles by 5 pm EST day ahead
 - Improves communication.
 - Plan enables TGP to provide reliable service.

Power Load Challenges

- Gas vs. electric day disconnect
- Daily vs. hourly contracting
- Pressure guarantees
- Penalties may not incentivize appropriate behavior
- Lack of adequate firm transport
 - Doesn't cover required transport quantity
 - Not nominated from primary receipt points
 - Doesn't provide for proper hourly flows
 - Swings on pipeline line pack reduces pressure

Transportation Contracts

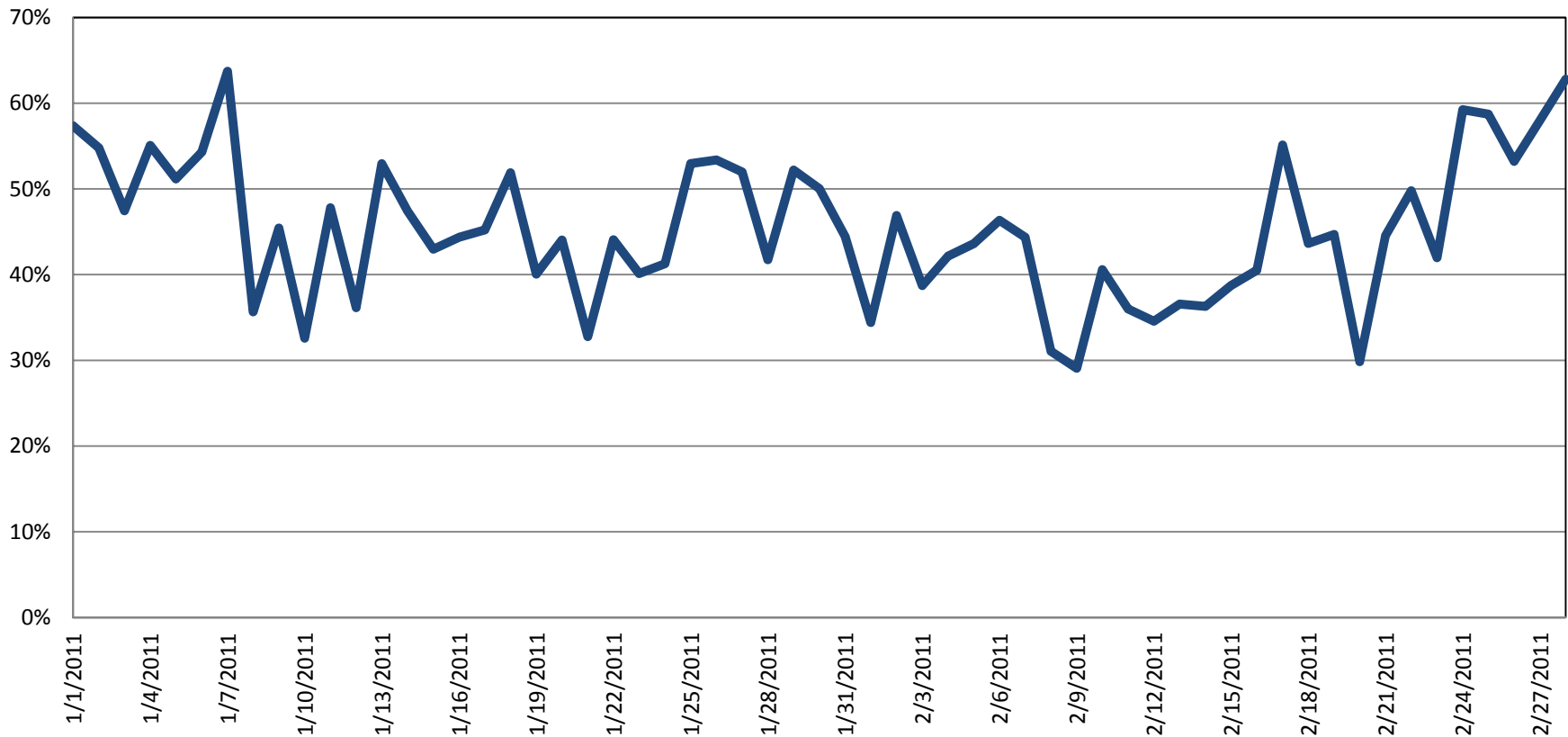
Power Plant Firm Daily TQ and Max Daily Load (Dth)



	INTERNATIONAL POWER - 20894	BERKSHIRE POWER - 20901	PITTSFIELD GENERATING - 20747	FPLE RISE - 20926	GRANITE RIDGE - 20931	MASSPOWER - 20751	MILLENNIUM POWER - 20884	OCEAN STATE POWER - 20707
■ Firm TQ (Dth)	25,000	0	34,000	45,000	130,000	25,000	0	50,000
■ Max Power Load (Dth)	110,000	47,000	50,000	90,000	130,000	50,000	60,000	100,000

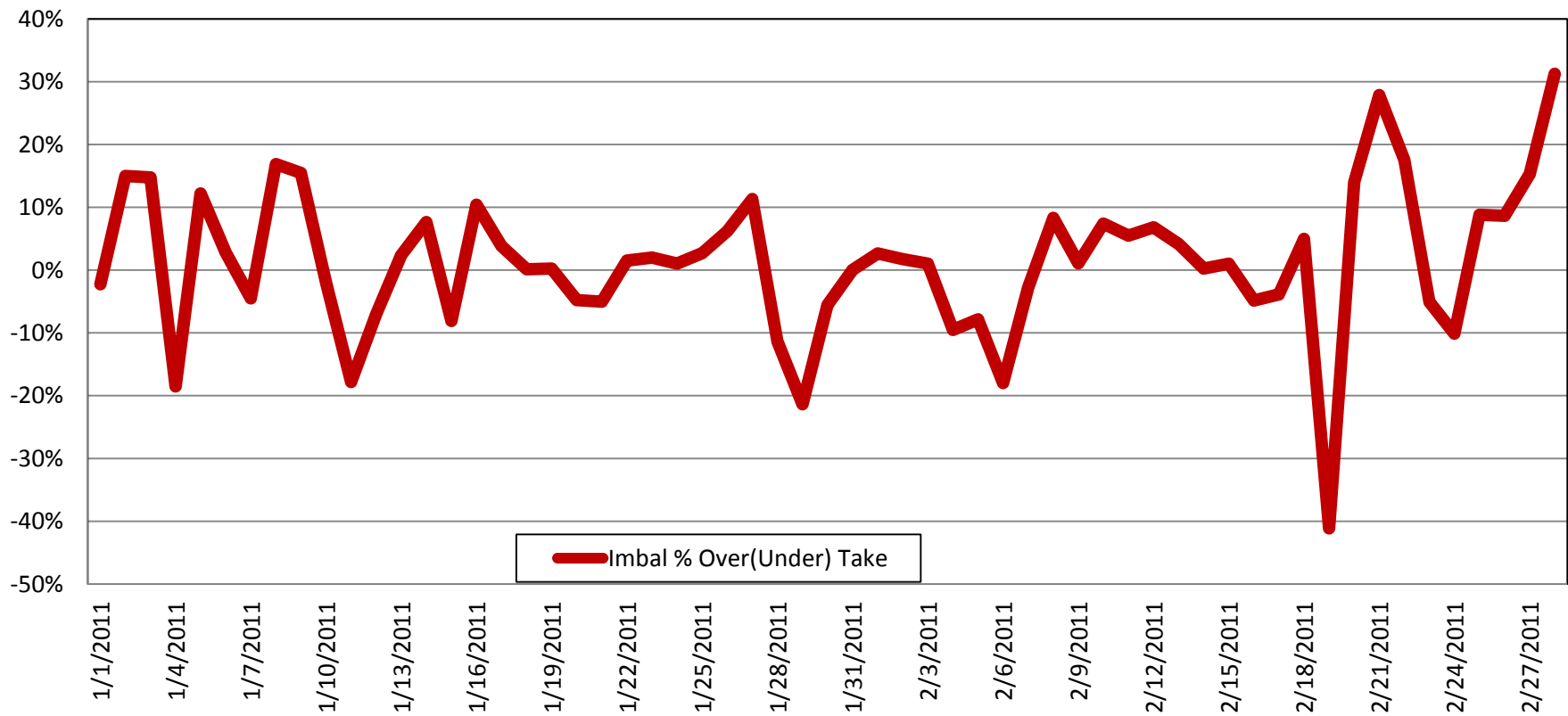
Receipt Nominations through Station 245

**Non Zone 6 Receipts
From Jan 2011 Thru Feb 2011**

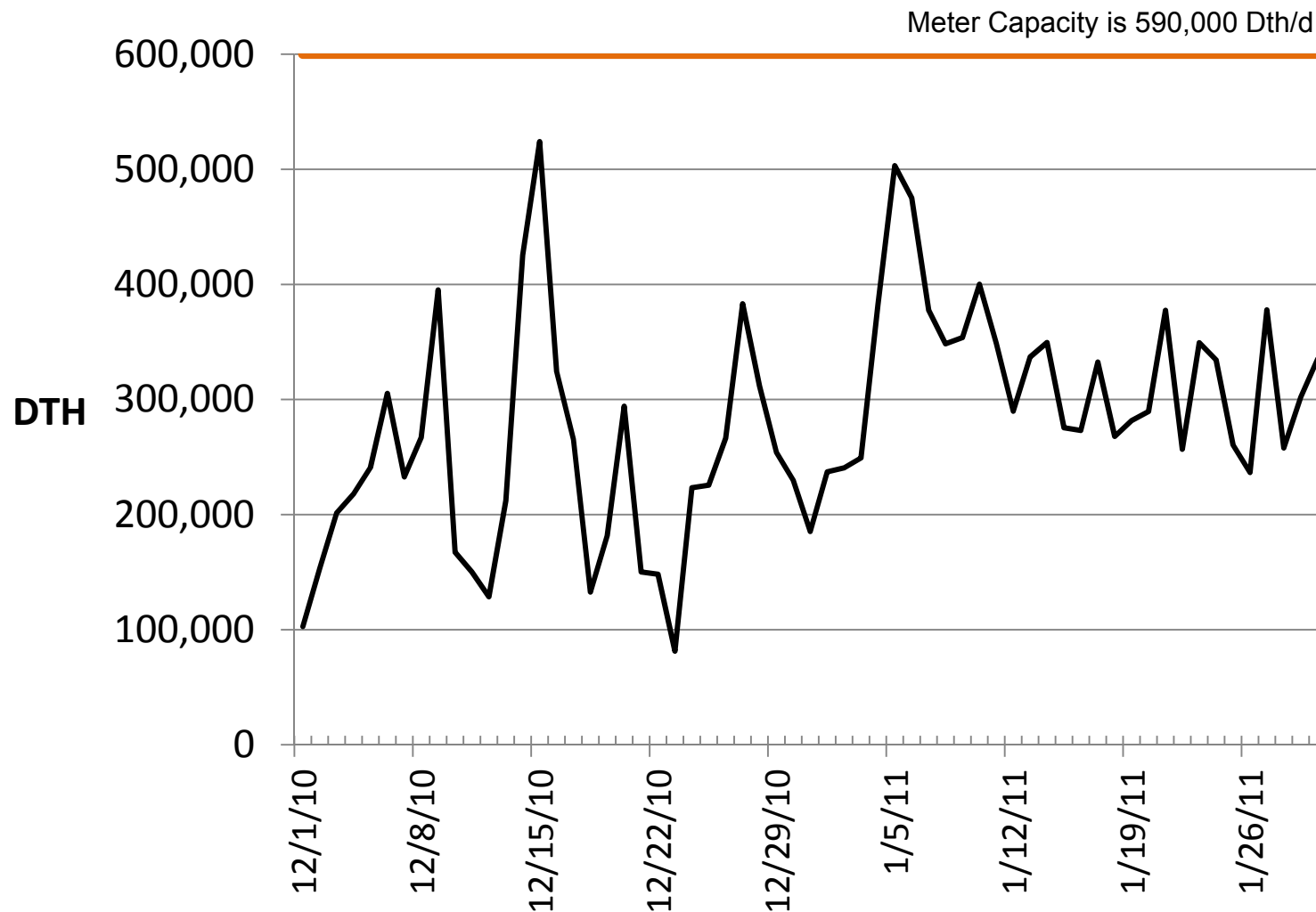


Daily Power Swings in Zone 6

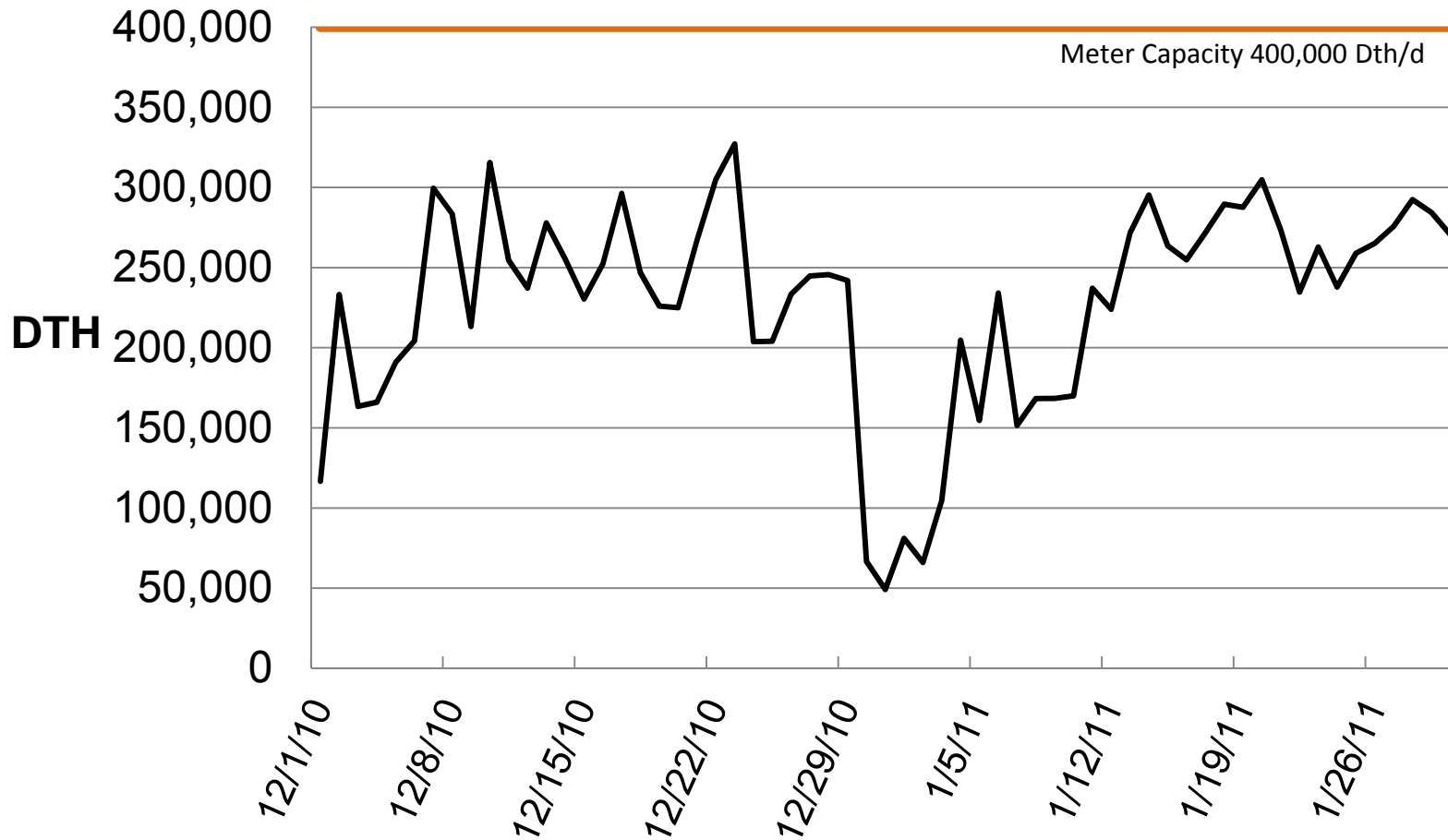
Daily Imbalance From Jan 2011 To Feb 2011



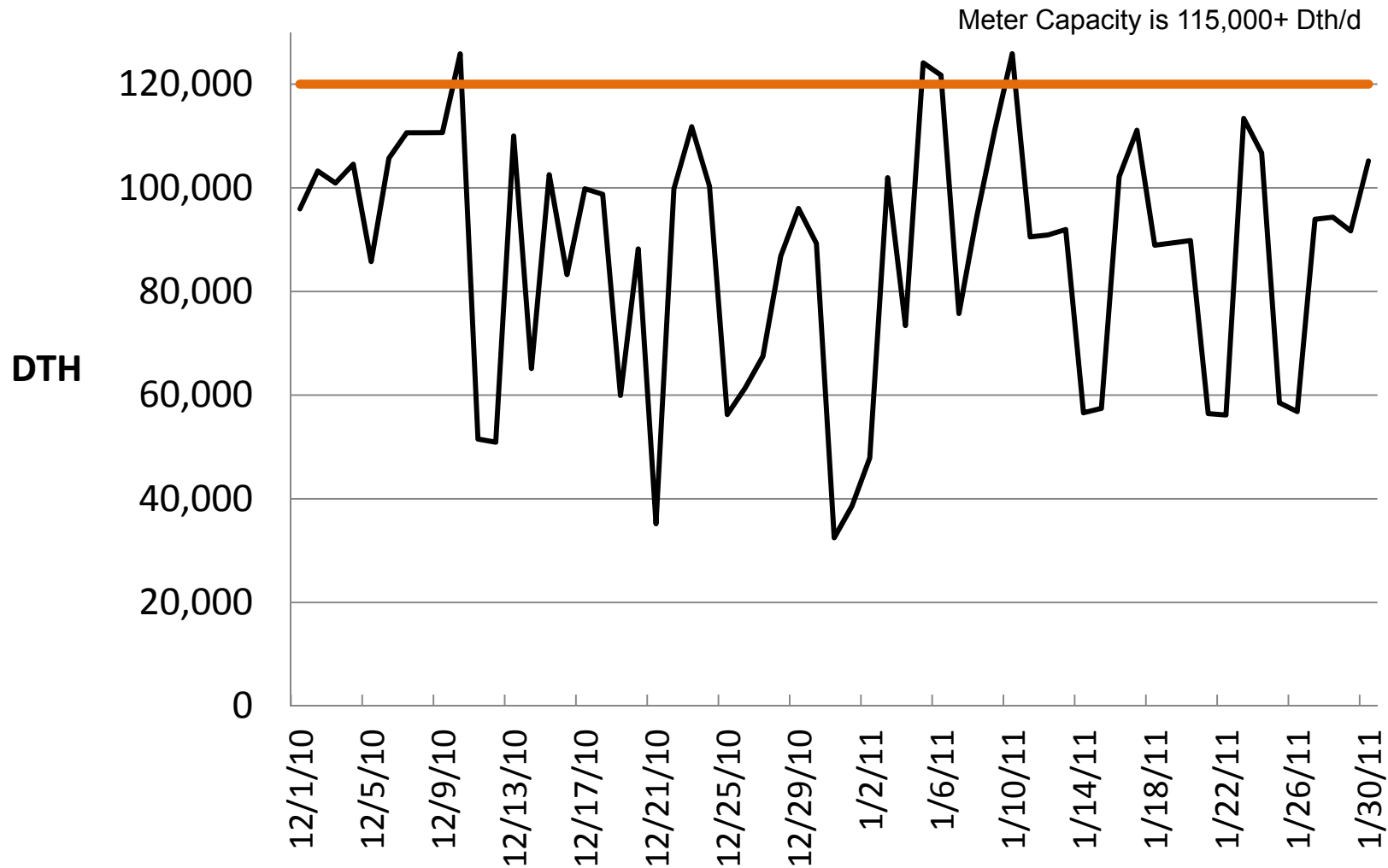
Transport Nominations: Dracut Receipts



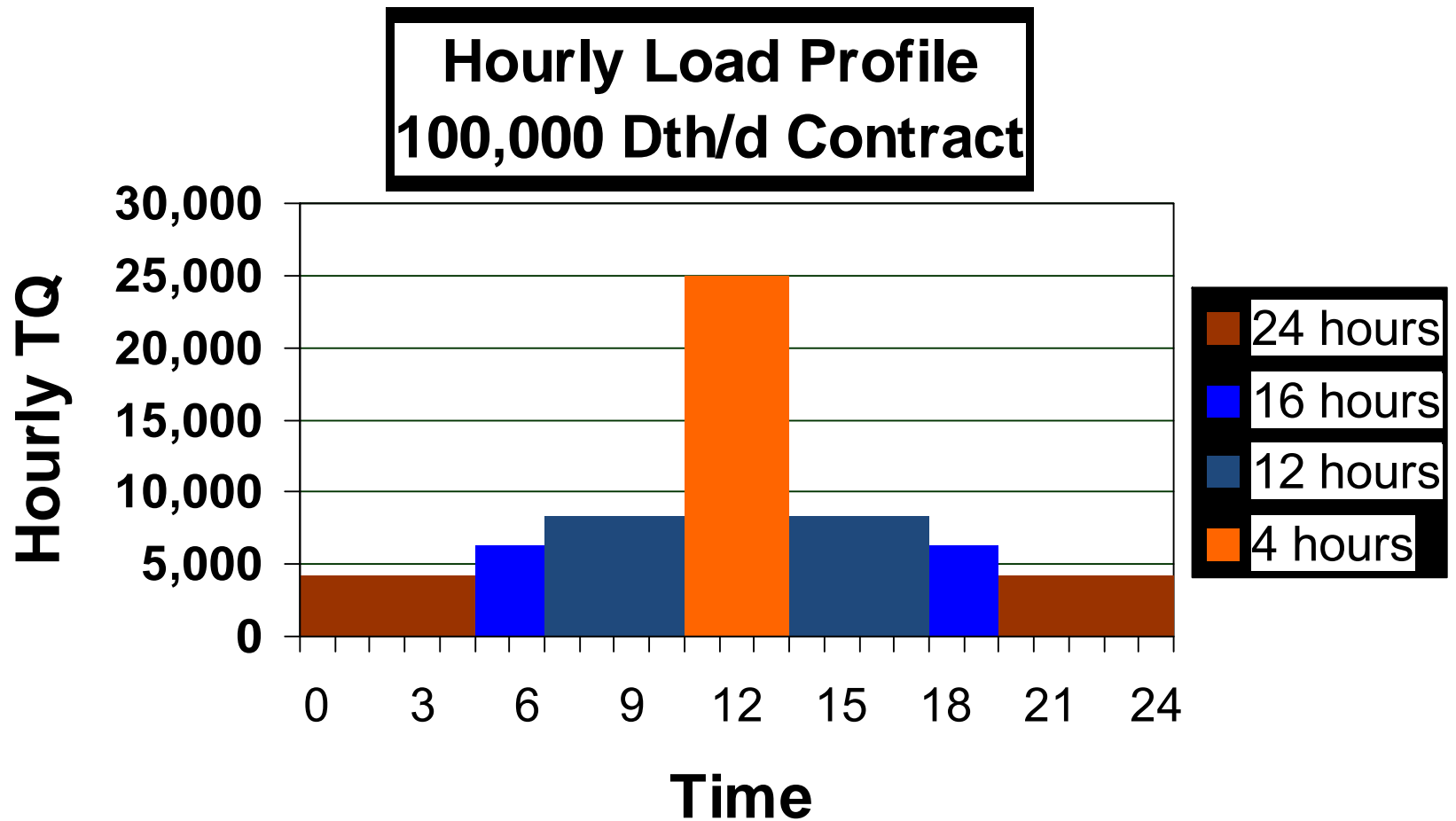
Transport Nominations: Wright Receipts



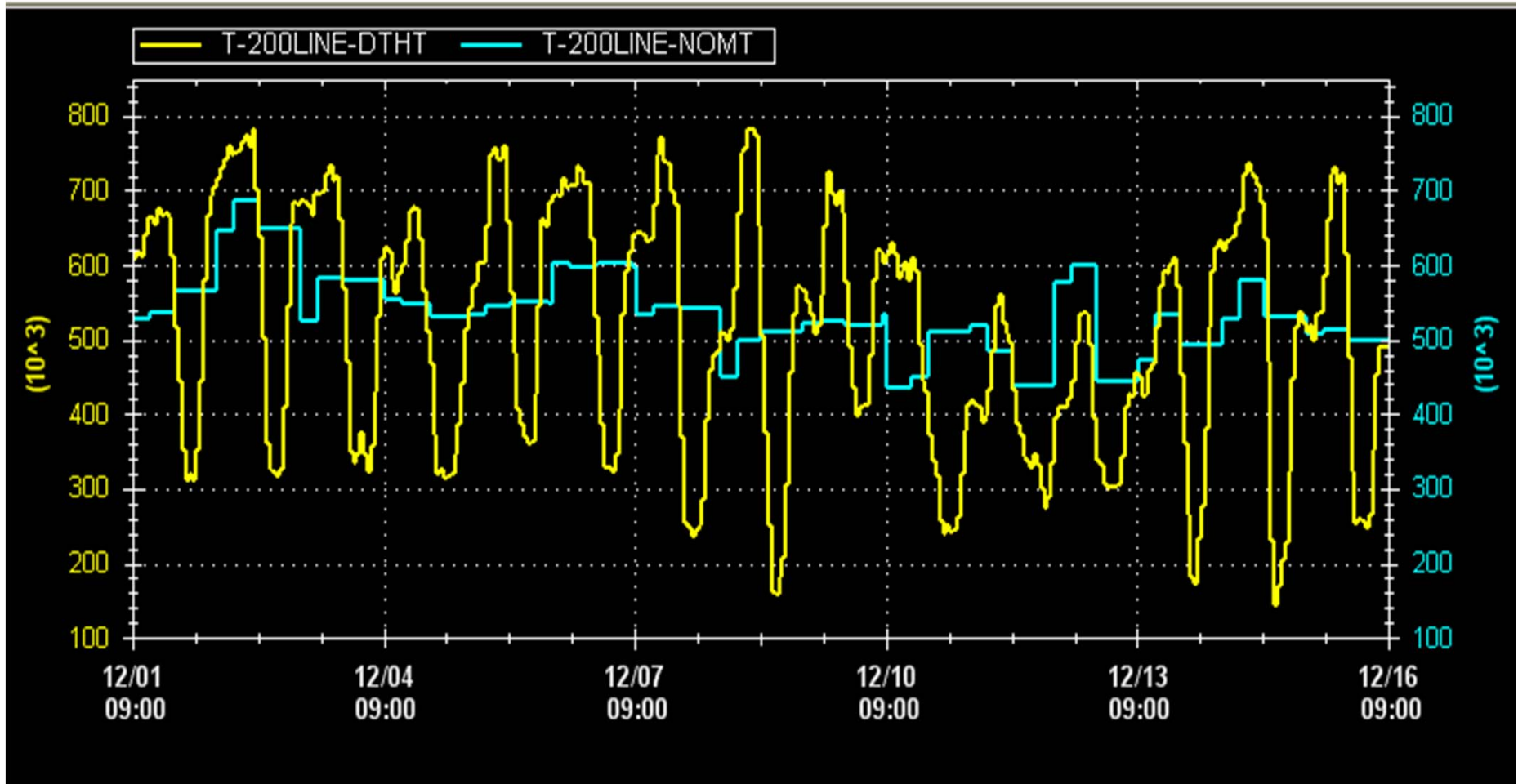
Transport Nominations: DISTRIGAS Receipts



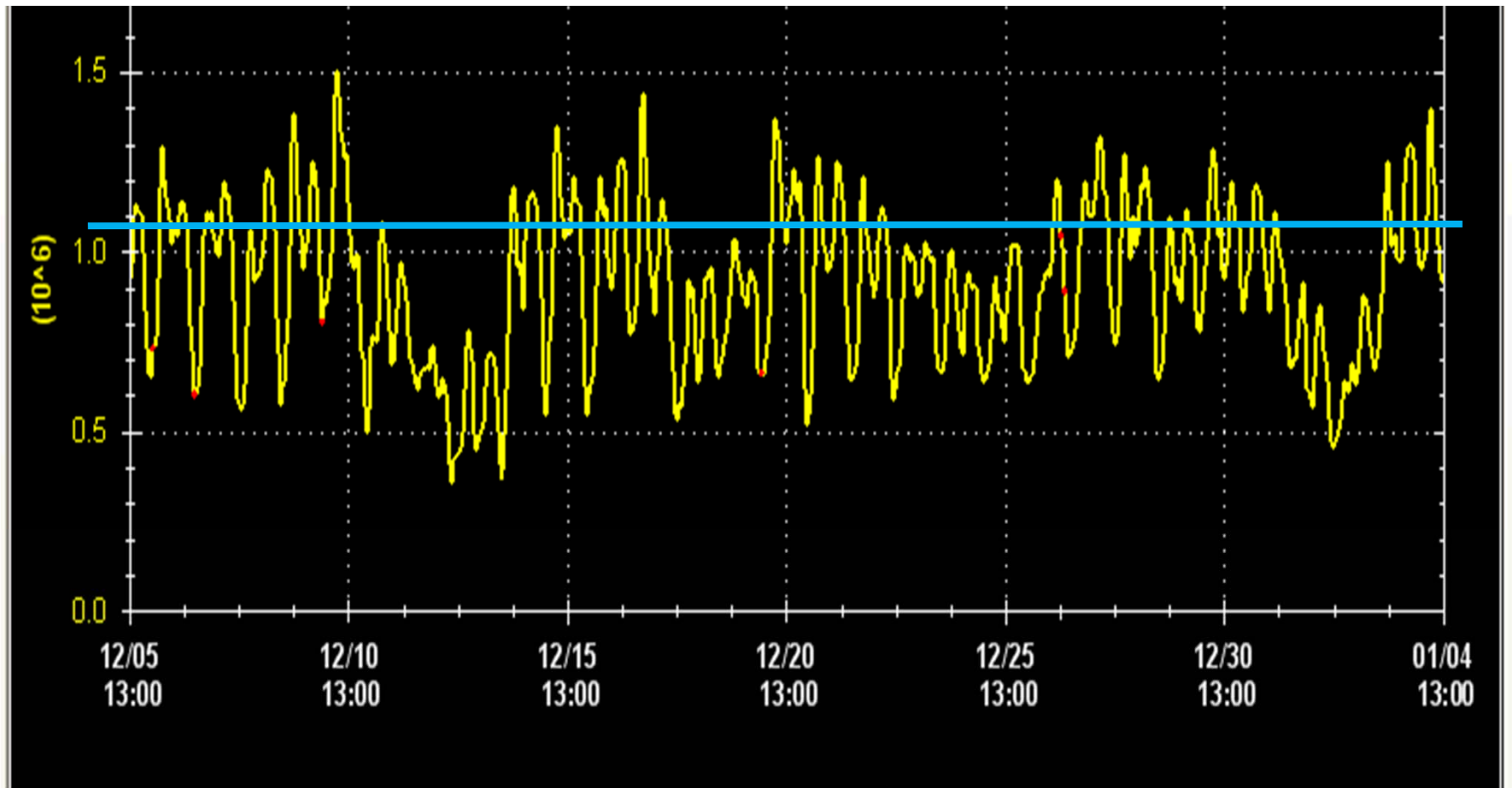
Hourly Load Profiles



Power Plant Zone 5 & 6 Physical Hourly Flow (yellow) vs Scheduled



Hourly Demand vs Pipeline Design Q



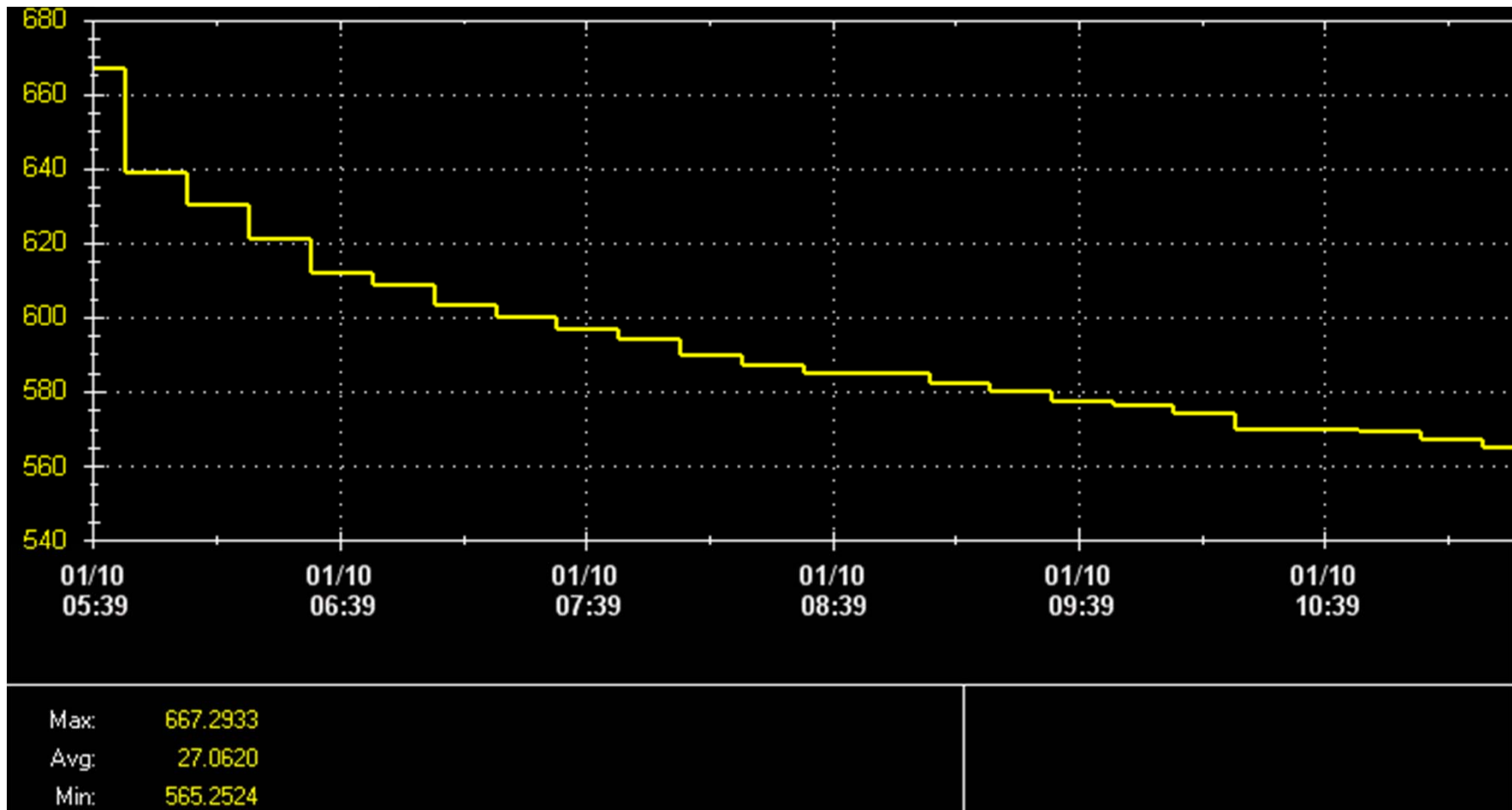
10 Dec 2010 11:43 AM
 Flow, Accumulated Volume, Nom, Pressure

200 Line/Zone 5&6	Flow	Acc Vol	Nom	Pressure
	0	79	184	787
	0	0	0	552
	74452	8000	69323	602
	124	19	0	616
	44116	4577	9373	403
	43960	4777	39800	693
	55366	6076	48456	350
	0	1	30017	531
	29332	2808	952	535
	88245	8731	71620	650
	102020	12901	90000	353
	132486	13877	77304	555
	45671	5125	0	554
TOTAL	615772	66973	437029	552

10 Dec 2010 3:33 PM
200 Line Zones 5 & 6

200 Line/Zone 5&6	Flow	Acc Vol	Nom	Pressure
	0	79	184	787
	0	0	0	535
	74392	19913	69323	606
	33795	2283	0	559
	21	10742	9373	418
	43635	11790	39800	692
	58253	15043	48456	363
	48439	7368	30017	427
	32272	7458	952	402
	66458	21064	71620	494
	51579	23486	90000	393
	109529	31663	77304	563
	31370	10742	0	555
	549743	161631	437029	523

Power Plant Meter Suction Pressure



TGP Operational Parameters

- To maintain the integrity of our system and contracts, TGP proposed the following:
 - If no volume is scheduled to the plant, the flow control set point may be zero
 - If no burn profile is provided, then the flow control set point may be 1/24th of scheduled quantity
 - Flow to power plants with intraday nominations may not be allowed until the effective time of the nomination unless the volumes are confirmed for an earlier time

TGP Operational Parameters

- In the event of falling line pressures TGP will:
 - Notify Power Plant Operators overtaking that they need to reduce their burn rate (Zones 5 & 6)
 - Confirm flow control set point with power plant
- TGP may:
 - Issue OFO to parties overtaking including hourly basis
 - Flow control to Scheduled Quantity, 1/24th daily
 - Close valves until TGP confirms Scheduled Volume prior to flow

Things to Consider

- Encourage use of proper transport agreements
 - ISO hold transport and release to generators
 - Flow through of transportation charges
- Ask questions when dispatching
 - What type of transport? How will it be used?
 - Do you have supply for your transport?
- Develop new services needed.
- Encourage new and needed infrastructure
- Address disconnects between Gas and Electric