



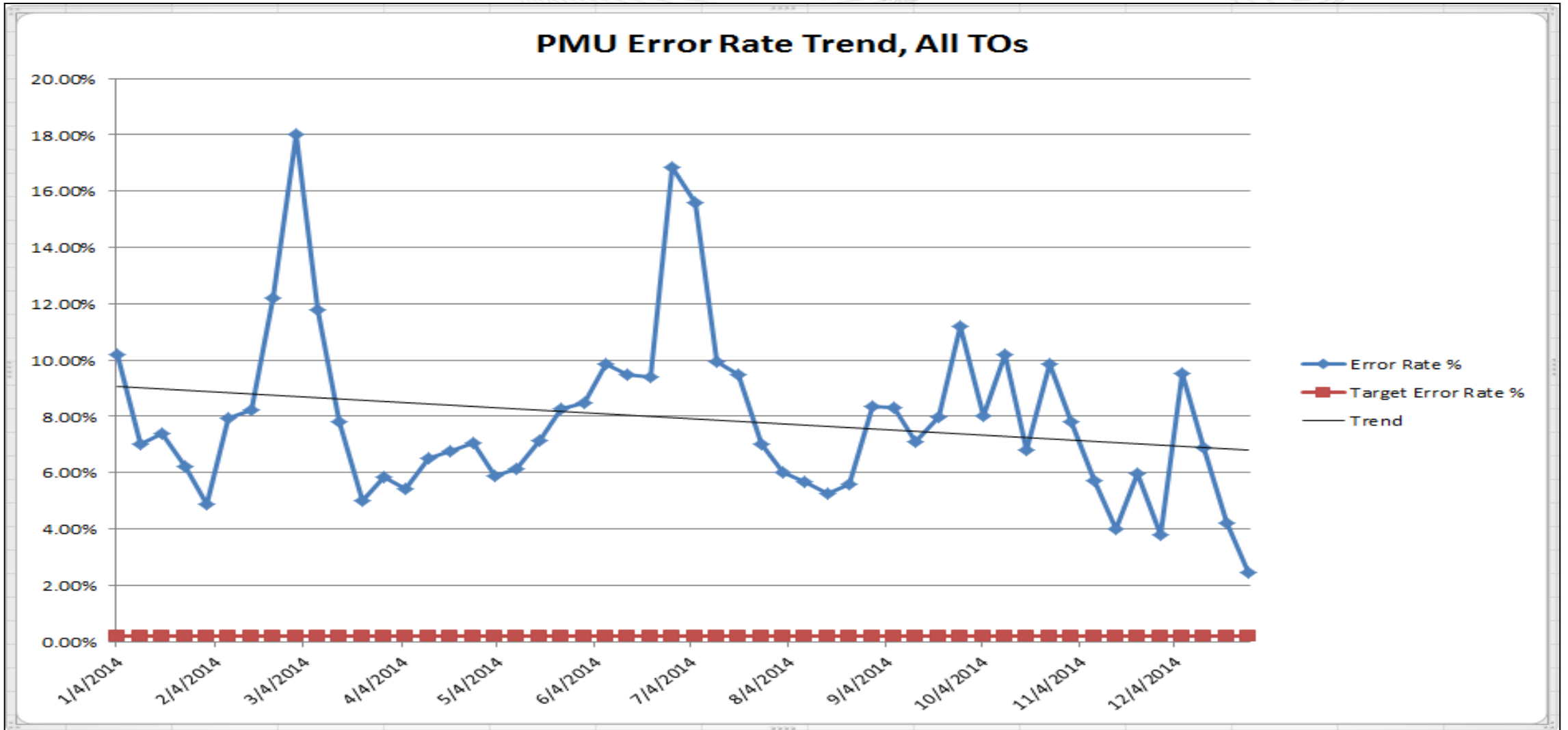
# Synchrophasors Update

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## Manual 01

Section 3.3.2 has a stated goal of 0.2% (or as defined by Phasor Data Quality Task Force) data inaccuracy or loss of data as a target (currently achieved by some member companies)

## 2015 Company-Specific goals

*Company- specific Data Quality goals have been identified for 2015*

If accepted and achieved, overall PJM error percentage will be reduced from 5 to 10% to 3.5 to 3%.

*Company-specific 2015 Data Quality goals will determine an overall PJM 2015 Data Quality goal.*

## Informal TO Survey Conducted

Purpose:	Interview TOs to assess use of PMUs
Responses:	12 TOs approached, 10 Interviewed, 1 partial reply via email, 1 no response

## PMU Form and Function:

6 TOs, representing 67% of all PMUs, have Protective Relays as PMUs

4 TOs, representing 29% of all PMUs, have Digital Fault Recorders as PMUs

Vendors were chosen almost universally based on vendor of choice/existing installed base.

## Latency:

Average data latency has some mild correlation with geographic size of TO network, specifically for some of the largest companies with highest latencies.

Low latency correlates strongly with low dropped data.

## RTDMS (Visualization Tool)

2 TOs report moderate use

4 TOs report minor use

4 TOs report no use or access at all

Reasons for no use:

- Problems with access
- No time
- No use case/no apparent value

## TO Individual Phasor Data Application

5 TOs report in-house application of phasor data (e.g. alternative SE, local RTDMS, oscillation detection, PI)

6 TOs report no in-house application of phasor data

## CIP Readiness

### TO Responses:

No PMUs are considered CIP critical at non-CIP critical substations.

Most or all PMUs are labeled CIP critical at CIP critical substations.

4 companies, approximately 50% of PMUs, are considered “CIP-ready”

6 companies, approximately 50% of PDCs, are considered “CIP-ready”

### PJM:

Phasor data and infrastructure continues to be handled as *non-critical*.

PJM operationalization of phasor data into real-time tools will continue through 2015.

Oscillation detection and mitigation tool (Q4 2015) may be the tool that makes PMU data critical for PJM.

## TO Responses

3 TOs reported immediate plans to install more PMUs.

Trigger typically associated with a new substation

5 TOs reported procuring PMU-ready devices to have the option to configure and activate phasor measurement capability in the future

3 TOs reported no immediate plans or triggers for installing more PMUs or PMU-ready devices.