

NASPI RITT
Research Initiative Task Team

Report Out

Vancouver, BC

June 9, 2010

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J. Chow

Agenda

1. Introduction All
2. 2010 Metrics and Goals L. Beard/J. Chow
3. White paper on PMU Siting J. Chow
4. Research Repository Y. Makarov
5. Success Stories Z. Tate
6. Researcher NDA A. Silverstein
7. PMU Database of Historical Events A. Silverstein/J. Chow
8. Research Presentations
Research Roadmap Y. Makarov
9. New Business/Activities J. Chow
10. Action Items (in red) J. Chow

RITT 2010 Goals and Metrics

Goal #	Goal	Metric	Deliverable	Lead
1	Revise Mission statement		June '10 (NASPI Vancouver meeting)	Lisa Beard, Joe Chow
2	Populating research repository	Add at least 50 more entries; update the Wikipedia entries; write paper to publicize repository	December '10	Luigi Vanfretti, Yuri Makarov
3	Researcher NDA	5 research groups signing document	December '10	Alison Silverstein
4	Research PMU database of historical events	Determine what information will be available in data sets; 5 data sets (disturbance, blue sky) made available	December '10	Alison Silverstein, Lisa Beard (EI), Farrokh Habibiashrafi (WECC)
5	PMU siting guidelines	White paper	June '10 (by NASPI Vancouver meeting)	Dejan Sobajic, Lisa Beard, Joe Chow, Luigi Vanfretti
6	Success stories	5 stories written up and posted	December '10	Zeb Tate, Krishnanjan Dubba Ravikumar, Teresa Carlon
7	Research topics and priorities	Evolving and up-to-date list	Ongoing	Joe Chow, Lisa Beard

White Paper on PMU Placement

- Purpose: Guide to PMU users with no or little background on synchrophasor applications
- Many placement documents developed, including:
 - CERTS: C. Martinez, M. Parashar, J. Dyer, and J. Coroas, “Phasor Data Requirements for Real Time Wide-Area Monitoring, Control and Protection Applications,” White Paper for EIPP Real Time Task Team, January 26, 2005.
 - MISO: Terry Bilke, Jim Kleitsch, and Tony Weekes, “Preferred PMU Placement,” April 3, 2009.
 - ATC: “PMU Placement Weighting Calculation”
 - WECC: Dmitry Kosterev et al., “WECC PMU Placement Criteria,” Rev. 3.0, February 2010.
 - NERC: NERC Standard PRC-002-1, “Regional Disturbance Monitoring and Reporting Requirements,” draft document.
 - Italian power system criteria (?)

White Paper on PMU Placement

- Contributions from many RITT team members. Editing team: J. Chow, W.-J. Lee, Krishnanjan Gubba Ravikumar
- Structure of white paper:
 - Main section (less than 10 pages)
 - Current/potential applications
 - Brief discussion on placement criteria for each applications (many overlaps: e.g., load modeling and voltage stability monitoring)
 - Appendices
 - More detailed discussion on some of the recommendations of PMU placement for each application (e.g., state estimation)
 - Each topic is limited to a couple of pages – some of the topics to be written by topical experts
 - Citations
- Suggestion to consider optimal PMU placement to satisfy multiple criteria
- A draft version by August.

Researcher NDA

- The plan is to provide researchers with 10 PMU of “big” disturbances and clear-sky data sets
- To date, not enough companies have signed the Industry NDA, meaning that the research data sets cannot be released yet.
- It is planned to revisit the write-up on research data set, developed several years ago.

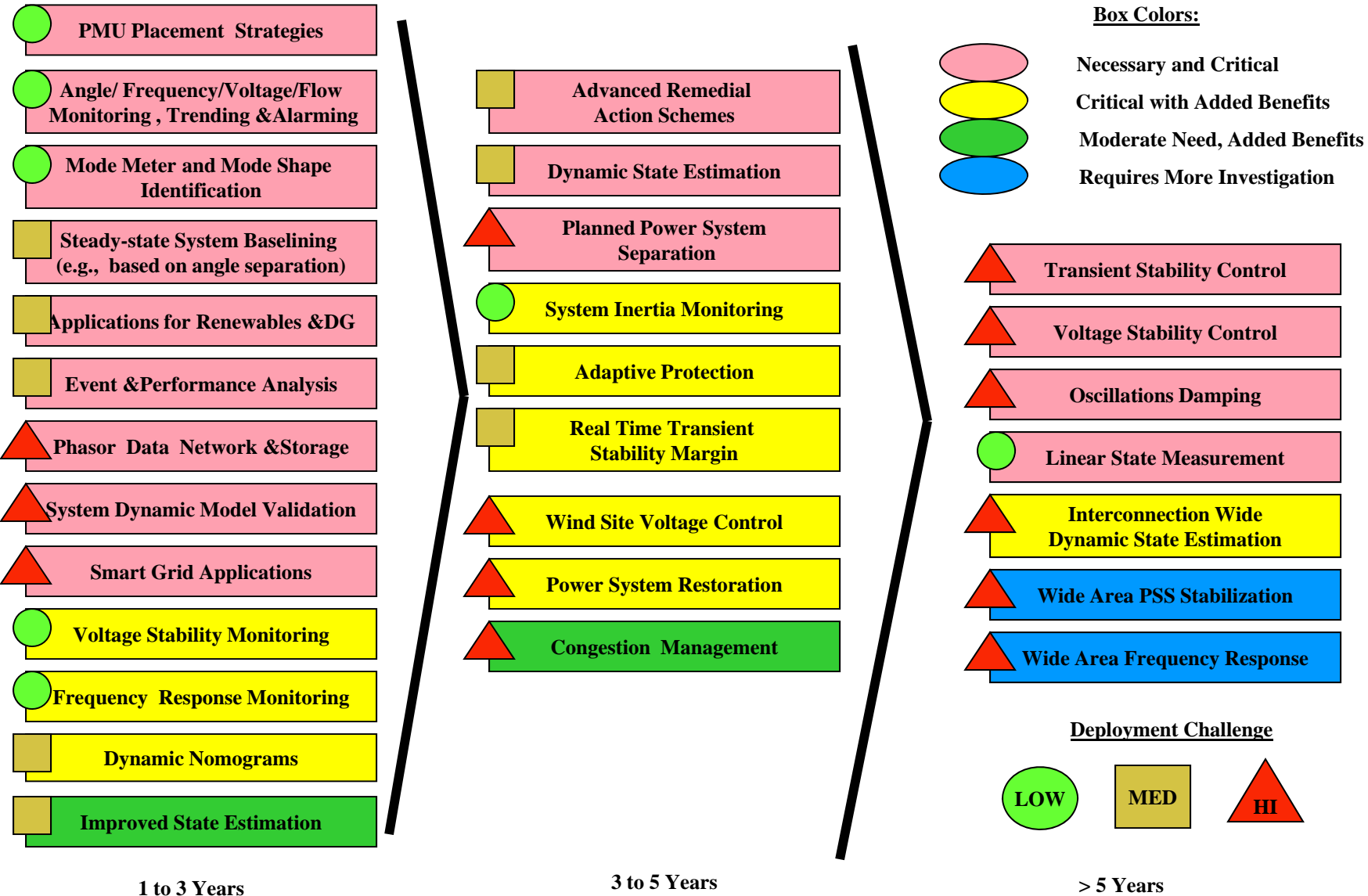
Research Repository

- There was general consensus that the Research Repository needs to be reworked, mainly because it is not “visible” on the NASPI website.
- A team led by Yuri Makarov plans to develop a paper on the Repository.
- Suggestions:
 - Change to simply “Repository”
 - Repository should also contain reports such as the RAPIR report and information on the SGIG PMU-related projects.
 - Organize keywords so that NASPI website or Repository can appear prominently in searches (general website improvement)
- **Comments are sought for Makarov’s paper, ideas on improving the Repository, and additions to the Repository**

Success Stories

- A two-page template has been developed to make it easy to post success stories.
- Only success story posted is the Entergy Hurricane Gustav restoration.
- Some suggestions:
 - CAISO event
 - TVA generator unit oscillation monitoring
 - The quick turnout in gathering the PMU data for the 2009 Florida Blackout event.
 - Revisit some earlier success story EIPP and NASPI presentations.
- **Develop a few new success stories in the next few months**

2010 NASPI Roadmap for Synchrophasor Applications (DRAFT v2.0 to be discussed at the NASPI Meeting in Vancouver, BC)



Joining RITT

- To join RITT, you have to sign up on the NASPI website to get RITT email correspondence.
- Monthly conference call.
- Short research presentations in future NASPI RITT breakout meetings