

NERC

NORTH AMERICAN ELECTRIC
RELIABILITY CORPORATION

Status Report: Integration of Variable Generation Task Force (IVGTF)

Mark Lauby
Director
Reliability Assessment Performance Analysis

to ensure
the reliability of the
bulk power system

- Background
- Membership and Leadership
- Status
- Areas of Further Study and Efforts
- Capacity Value Methods
- Drafted Titles
- Reliability Aspect



- Formed by NERC's Planning & Operating Committees in December 2007
- Over 80 participants and growing, 78 official "members"
 - Utilities, ISO / RTO's, wind and solar manufacturers, associations, government
 - Strong cross-border collaboration (U.S. & Canada)
- Focus on reliability



- Five groups have been formed by the leadership team to address the work plan (13 TF created)
 - Probabilistic Techniques
 - Planning
 - Interconnection
 - Operating
- Reference Manual

Leadership (2 Co-Chairs)

- Operations (Interconnection and Operations work packages)
Mr. John Dumas, ERCOT
- Planning (Planning, Probabilistic Methods and Reference Manual work packages).
Mr. Hardev Juj, BPA

- Conference calls initiated on July 2009 and ongoing meetings every month
- Leadership team met in Austin, Texas on December 4, 2009 for status & work coordination
- All 13 task forces have been launched
- See Status Report for Details
- Three-Year Work Plan activities are updated

Capacity Value Methods (Task 1.2)

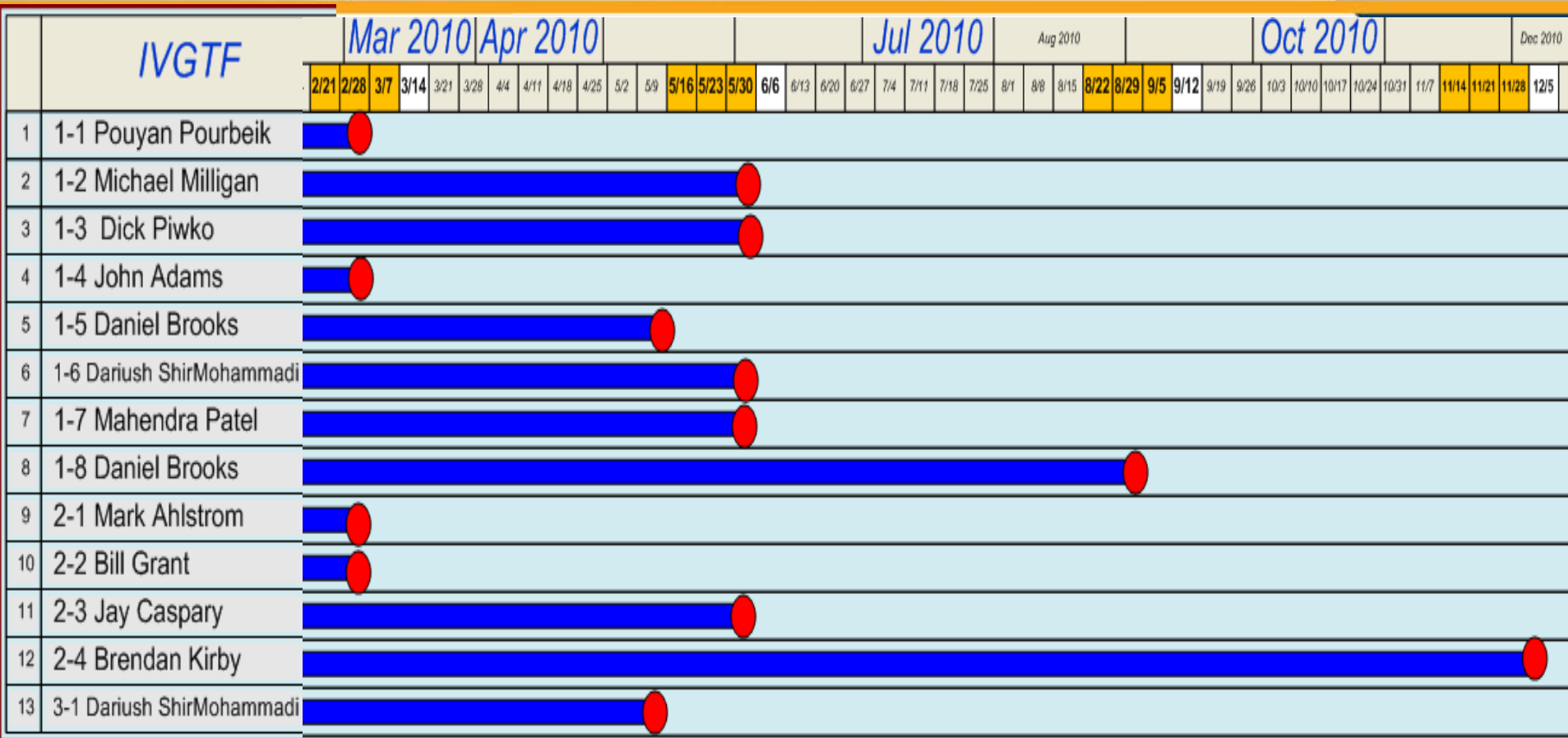
- Tasked with Resource Issue Subcommittee (RIS)
- Methods to be evaluated are:
 - Effective Load Carrying Capability (ELCC) vs. traditional Loss of Load Methods (i.e. LOLE & LOLP)
 - Variable Generation Contribution
 - Correlation between Resource Contribution and Mix

- Standard Models for Variable Generation
- Flexibility Requirements and Metrics for Variable Generation
- Reliability Impacts of Storage and Demand Response
- Low-Voltage Ride-through Requirements
- Bulk System Reliability Impacts of Distributed Resources

IVGTF Milestones

	IVGTF		Start	Finish	Duration	Jan 2010												Mar 2010			
						12/6	12/13	12/20	12/27	1/3	1/10	1/17	1/24	1/31	2/7	2/14	2/21	2/28	3/7	3/14	3/21
1	1-1 Pouyan Pourbeik	1	12/7/2009	3/5/2010	65d																
2	1-2 Michael Milligan	2	12/7/2009	6/1/2010	127d																
3	1-3 Dick Piwko	3	12/7/2009	6/4/2010	130d																
4	1-4 John Adams	4	12/7/2009	3/5/2010	65d																
5	1-5 Daniel Brooks	5	12/7/2009	5/14/2010	115d																
6	1-6 Dariush ShirMohammadi	6	12/7/2009	6/4/2010	130d																
7	1-7 Mahendra Patel	7	12/7/2009	6/4/2010	130d																
8	1-8 Daniel Brooks	8	12/7/2009	9/3/2010	195d																
9	2-1 Mark Ahlstrom	9	12/7/2009	3/5/2010	65d																
10	2-2 Bill Grant	10	12/7/2009	3/5/2010	65d																
11	2-3 Jay Caspary	11	12/7/2009	6/4/2010	130d																
12	2-4 Brendan Kirby	12	12/7/2009	12/7/2010	262d																
13	3-1 Dariush ShirMohammadi	13	12/7/2009	5/14/2010	115d																

IVGTF Milestones continued



Future Deliverables for Approval

- PC/OC March 16-18, 2010
 - Models for Variable Generation
 - Balancing Authority Communications
 - Resource Adequacy and Transmission Planning
 - Operator Survey

A stylized map of North America, including the United States, Canada, and Mexico, is shown in a light blue color. The map is overlaid on a background of a bright blue sky with white clouds. A dark blue horizontal band is positioned across the middle of the map, containing the text "Question & Answer".

Question & Answer