

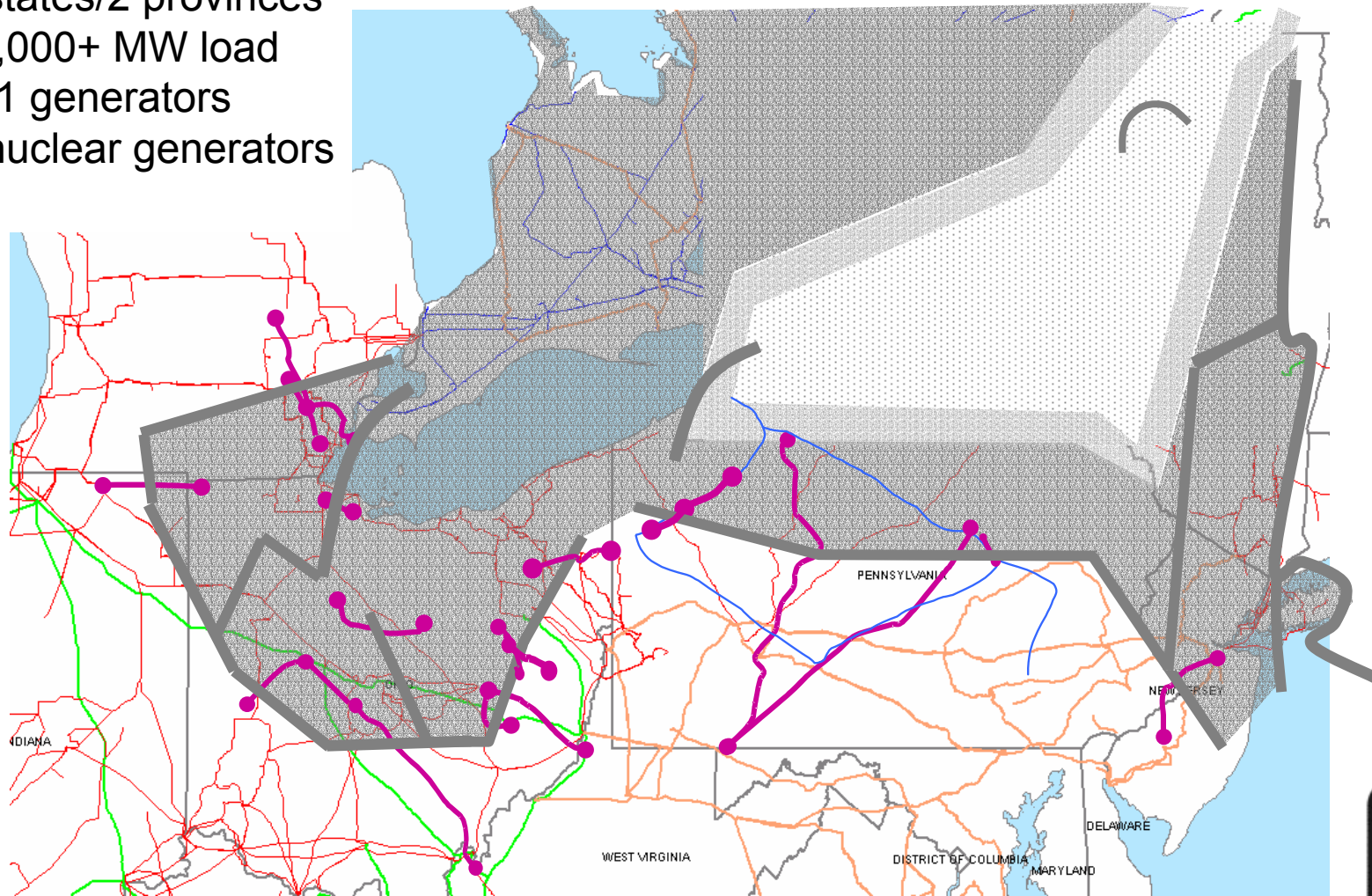
Change is Coming NERC Readiness Audit Program and Version 0 Standards

NARUC Staff Subcommittee on
Electric Reliability
November 14, 2004



Motivation - August 14, 2003 Blackout

50+ million people
8 states/2 provinces
65,000+ MW load
531 generators
9 nuclear generators



Readiness Audit Program

- **Established after August 14 blackout**
- **Audit all control areas and reliability coordinators within three years**
- **Assesses readiness to perform reliability functions**
 - **Forward looking**
- **Not a compliance audit**
 - **Compliance audit determine historical compliance with NERC standards**



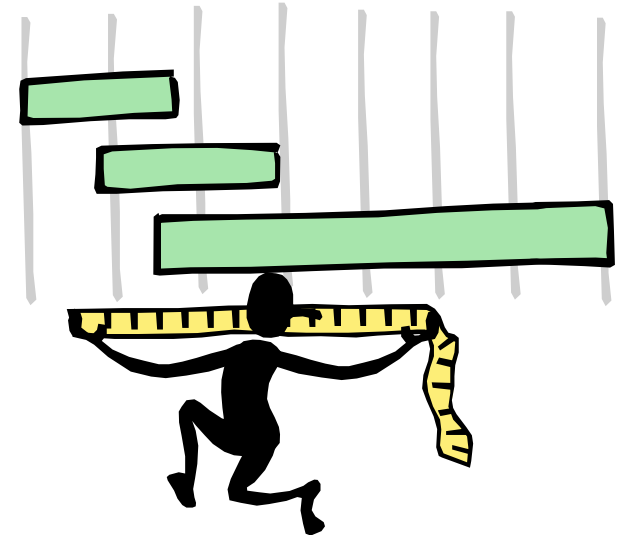
Purpose of Readiness Audits

- **Assure reliability**
- **Provide an independent review of operations**
- **Identify areas for improvement**
- **Share best reliability practices (not commercial)**
- **Constructive**
 - **Help industry achieve excellence**



Readiness Audit Program Status

- On target to audit one-third of control areas and reliability coordinators in 2004
- Audits Completed as of October 14, 2004
 - 43 Control Areas
 - 4 Reliability Coordinators
 - 1 Transmission Operator



Readiness Audit Program Findings

- **Most entities are ready to meet their reliability responsibilities**
- **Best practices identified**
- **Areas for improvement noted:**
 - **Training**
 - **Backup control facilities**
 - **Documenting authority and responsibilities**
 - **Real time monitoring**
 - **Reactive reserve monitoring**
 - **Procedure and policy updates**



Readiness Audit Program Schedule

- **Fall 2004**

- **20 Audits Scheduled**
 - 21 Control Areas
 - 2 Reliability Coordinators



- **Remaining audits completed by end of 2006**

- **Will include sub-operating entities in large RTOs**



Improving the process

- Report development time extended
- Duration of on-site audits extended
- Size/makeup of audit teams being reviewed
- Control room walk-through moved to 1st day
- Revised questionnaires and auditor's guide
- Developing auditor checklists
- More full-time auditors on board
- Recommendation tracking under development
- Possible standards violations process



Process Improvements - Future

- **Combine reliability coordinator and control area audit processes**
- **Functional model implementation**
 - **Modules to be developed for each reliability function**
- **Training for auditors**
- **Constructive feedback**



Version 0 Reliability Standards and Initial Functional Registration



Blackout Investigation - Findings

- Standards require
 - Unambiguous requirements and measures
 - Accountability (who is responsible)
- Compliance requires
 - Active monitoring
 - Disclosure of compliance results
 - Firm action to resolve violations
- Stop repeating lessons from prior blackouts: trees, operator tools, training

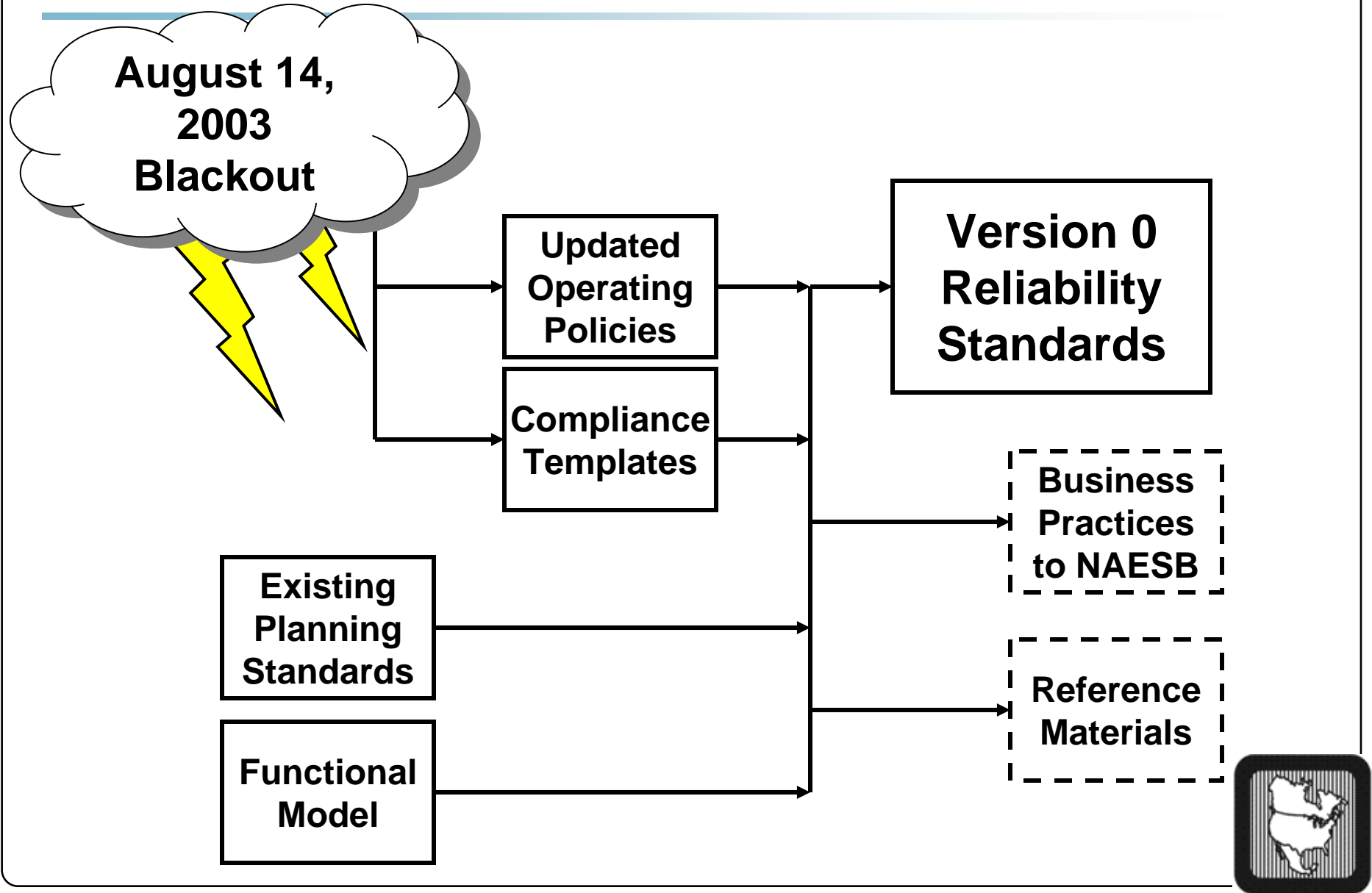


Reliability Standards Mandate

- U.S./Canada Power Outage TF:
 - Accelerate the adoption of unambiguous and measurable standards
 - Streamline standards process
- FERC reliability policy:
 - “Expediently modify [NERC] reliability standards in order to make these standards clear and enforceable.”
- Additional NERC goals:
 - Converge existing multiple standards documents and processes
 - Simplify transition to reliability standards by adapting existing rules as starting point
 - Prepare for reliability legislation



Version 0 Reliability Standards

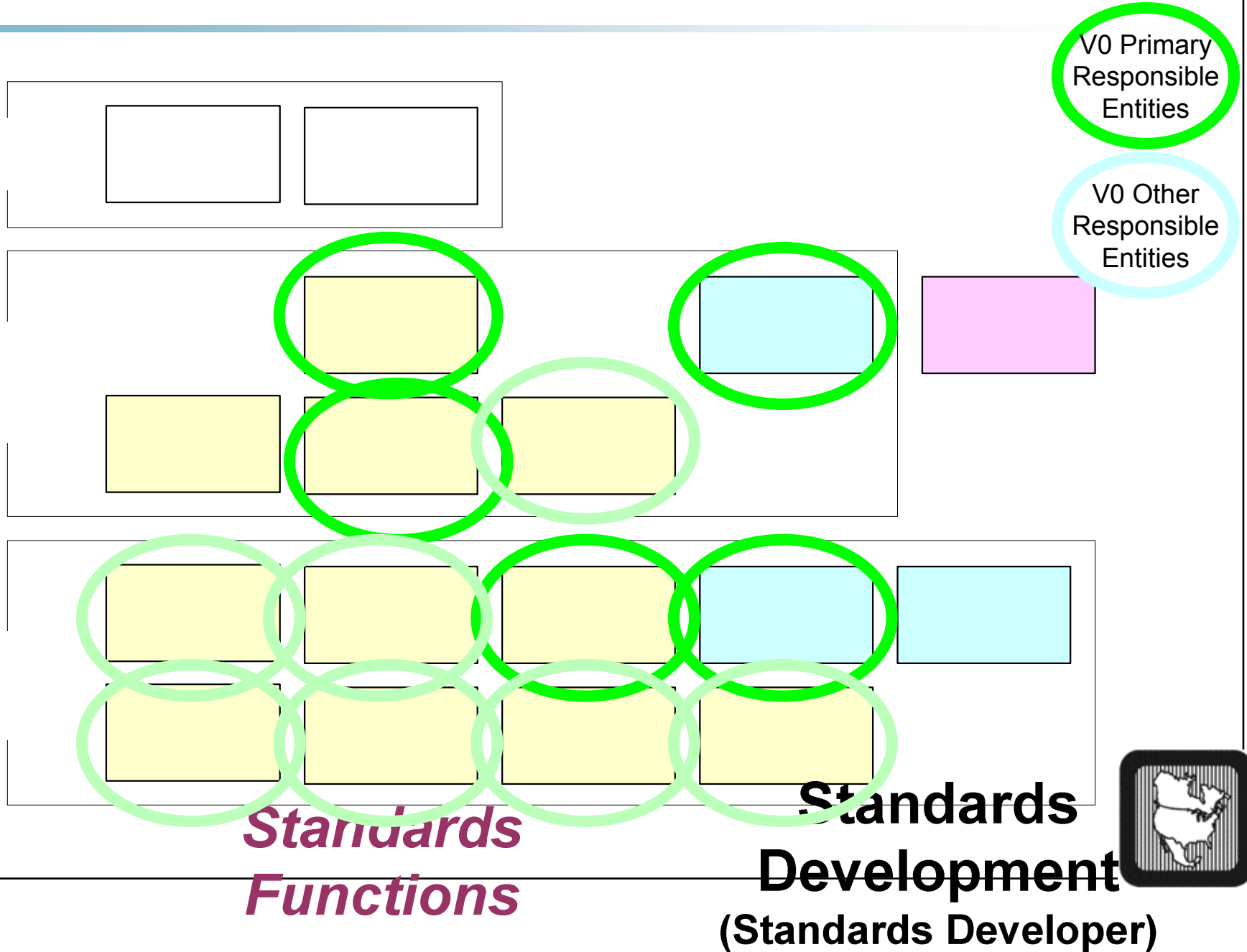


Standards Transition Objectives

- Translate policies, standards, compliance templates into 'Version 0' reliability standards
 - Minimize content changes
 - Identify Functional Model responsible entities
 - Identify business practices
 - Make passive/indeterminate requirements active/clear
- Use ANSI-approved process
- Complete initial function registrations
- Adopt 'Version 0' standards and retire existing policies, standards, templates
- Streamline standards process



Functional Model Enhances Accountability



Sample of Version 0 Translation

BEFORE

Planned transmission outages shall be coordinated with any system that operations planning studies show might be affected.

AFTER

Each Transmission Operator shall provide outage information daily to its Reliability Authority for any foreseen outage of a transmission line or transformer greater than 100 kV that may cause an SOL or IROL violation or a regional operating area limitation.



Version 0 – Schedule

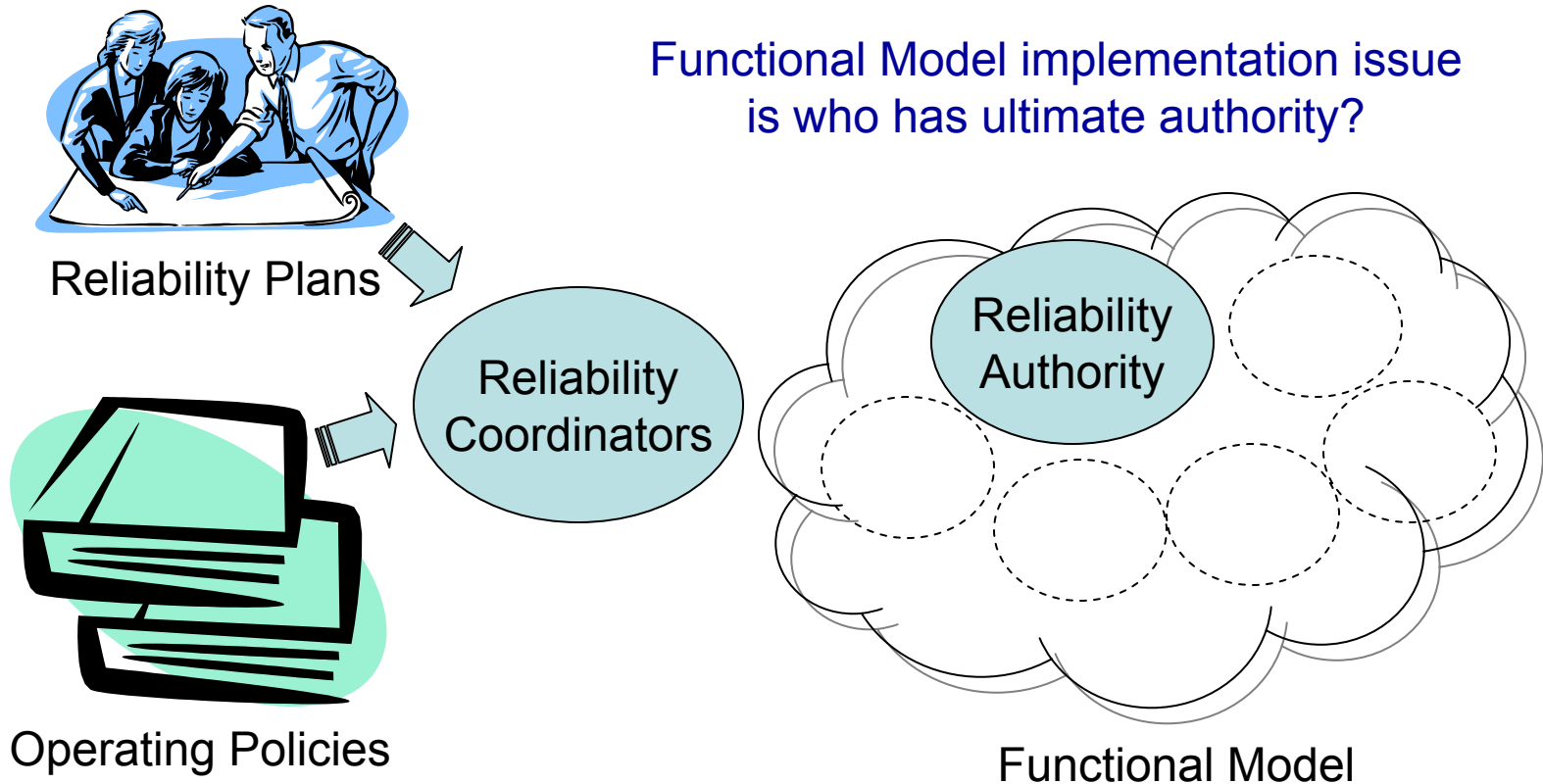


- Proposed Version 0 reliability standards
- Glossary of terms used in standards
- Mapping from Version 0 to operating policies and planning standards
- Proposed new standards numbering system



Version 0 – Functional Model Issues

- Relationship between Reliability Coordinator and Reliability Authority?



Functional Model implementation issue
is who has ultimate authority?



Business Practices Assigned to NAESB

- Appendix 1A - ACE equation special cases
- Policy 1D – time error correction
- Policy 1F – inadvertent payback
- Policy 3 – tagging procedures and specifications
- TLR procedure (Policy 9)
 - Joint NERC and NAESB
- Some Draft 1 commenters indicated TTC, ATC, TRM and CBM should be addressed by NAESB
 - Kept in NERC Draft 3
 - Assign NERC-NAESB team to work on Version 1



Functional Registration Process

- Due 1/28/04
- Key to accountability & compliance monitoring
- Operating entities
 - Reliability Coordinators
 - Balancing Authorities
 - Transmission Operators
- Planning entities
 - Planning Authorities
 - Transmission Planners
 - Regional Reliability Organizations



Version 0 Standards Next Steps

- Draft 3 (for ballot) posted 11/3
- RBB ballot of Version 0 standards 12/3 to 12/13
- Initial functional registration complete 1/28
- BOT adoption 2/8
- Effective date 4/1 (2nd quarter 2005 compliance program)



Benefits of Accelerated Transition

- Meet U.S.-Canada TF and FERC recommendations on reliability standards
- Standards with clearer accountability and measures
- One set of reliability rules
- One ANSI-accredited process
- Streamlined standards process
- Smooth transition to new standards
- NAESB adoption of complementary business practices



Questions

