NYISO
Initial Planning Process

~~**Draft 8/21/03**~~***September 4, 2003***

NYISO Initial Planning Process
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1. Introduction

The NYISO Initial Planning Process is the first phase in the development of a comprehensive planning process for the NYISO. This process is being developed by NYISO Staff with assistance of the Electric System Planning Working Group ("ESPWG"), an ad- -hoc committee comprised of BIC and ~~MC representatives.~~OC member companies. The Initial Planning Process will focus on the consolidation of the existing NYISO reliability-based analyses, an extension of~~those~~ reliability analyses ~~from 5 to 10 years,~~for an additional 5 years to cover a 10 year period, and the addition of reliability scenario analyses to the base case conditions. In addition, the Initial Planning Process will include ~~the~~more detailed reporting of historical congestion costs and~~selective~~ analysis of the causes of historic congestion in order to provide more complete information to the marketplace to assist in future decision making. (**See Attachment A** for the Process Flow Diagram depicting the major elements of this Initial Planning ~~Process.)~~
Process.) This scope for the NYISO Initial Planning Process is being brought forward to the OC for discussion and action at the Sept 10th 2003 meeting.

It is anticipated that development efforts on the ~~Comprehensive~~Phase 2 "Comprehensive" Planning Process~~(Phase II)~~ will begin immediately upon the establishment of the Phase I process. The Phase II discussions will ~~address~~consider additional issues such as the various FERC planning requirements of Order ~~2000 and~~2000, the SMD NOPR, and the Wholesale Market Design Whitepaper, including both reliability and economic issues. The scope for this Initial Planning Process may need further modifications based upon the outcome of the Phase 2 process. It is anticipated that a FERC filing will be required for the Comprehensive Planning Process.

2. Stakeholder Process

In light of the fact that the Initial Planning Process contains both reliability and ~~economic features,~~business issues, it has been agreed that both the Transmission Planning Advisory Subcommittee ("TPAS") and the ESPWG will participate in the implementation process. This participation will consist of parallel input and review stages as shown in **Attachment B.**

TPAS will have primary responsibility for the reliability ~~based~~ analyses, while the ESPWG will have primary responsibility for providing commercial input and assumptions utilized in the development of ~~future scenarios as well as provide input into~~reliability assessment scenarios and the reporting and analysis of historic congestion costs. Coordination will be established between these two groups and with NYISO Staff during each stage of the planning process.

The intention is to achieve consensus at both TPAS and the ESPWG. While no formal voting process ~~has been~~is established at this level, which is typical for NYISO

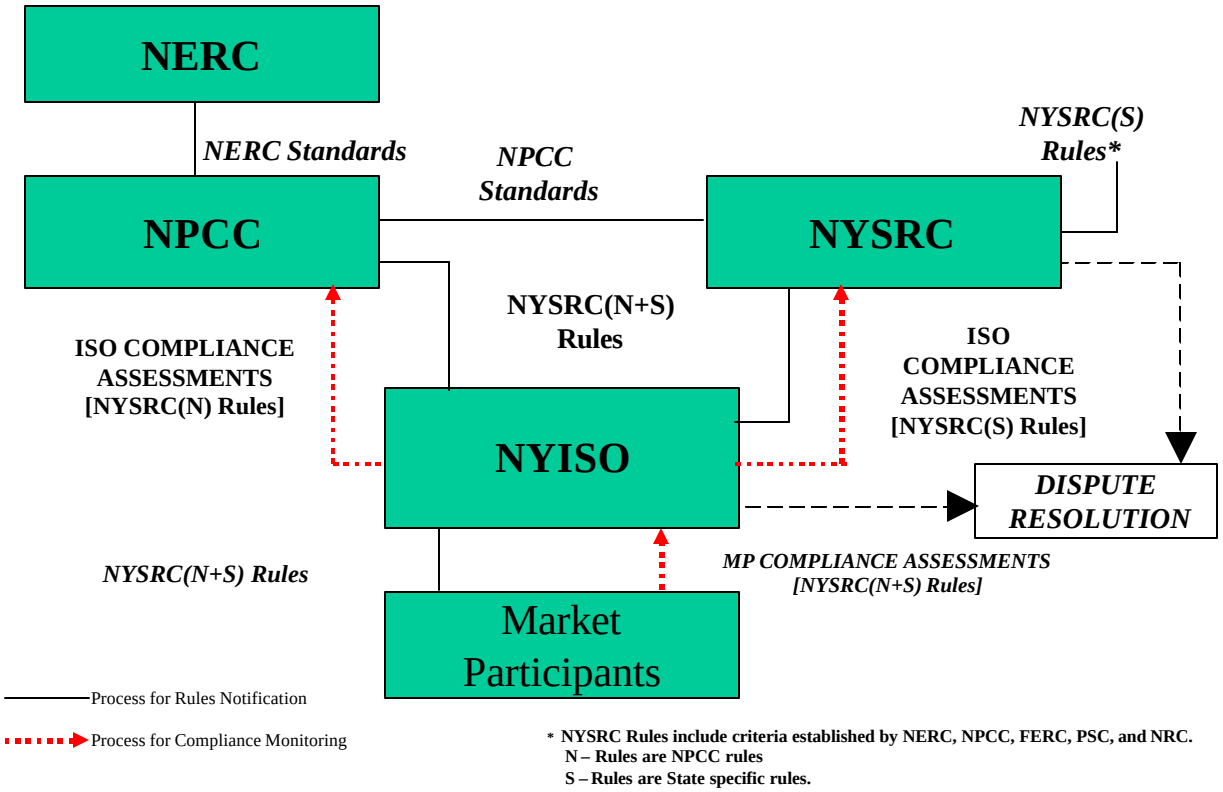
working groups, an opportunity for reporting majority and minority views will be provided in the absence of a consensus.

Following TPAS and ESPWG ~~final~~ review, the ~~NYISO Staff's Final~~ Draft Report will be forwarded to the Operating Committee ("OC") for discussion and action and subsequently to the Management Committee for discussion and action. See Section 4.4.1 for a further description of the Stakeholder Review Process.

3. Planning Criteria and Objectives

The New York Control Area ("NYCA") power system is planned and operated to the planning and operating policies, standards, criteria, guidelines, procedures and rules promulgated by the North American Electric Reliability Council ("NERC"), Northeast Power Coordinating Council ("NPCC"), and the New York State Reliability Council ("NYSRC"). NERC establishes operating policies and planning standards for North America which includes the United States of America and the Provinces of Canada. NPCC criteria, guideline and procedures which apply to the five areas comprising NPCC (New York State, the New England States, and the Canadian Provinces of Quebec, Ontario and the Maritimes) may be more specific or more stringent than NERC standards and policies by recognizing regional characteristics or reliability needs – e.g., "the one day in ten years" loss of load expectation criteria. The NYSRC rules that apply to NYCA may be more specific or stringent than NERC and NPCC by recognizing NYCA characteristics and reliability needs – e.g., locational capacity requirements. The NYISO is the primary interface between market participants and the reliability councils. The chart below presents an overview of those interfaces.

Overview of the NYISO Reliability Interfaces



The objective of the initial planning process is ~~three fold:~~to provide a comprehensive evaluation of the reliability needs of the NY system and will strive: 1) to demonstrate that the NYCA power system expansion plans are consistent with the reliability rules and will ensure the continued reliability (i.e., adequacy and security) of the power system consistent with good utility practice; 2) to identify, through reliability scenarios development, factors and issues that might adversely impact the reliability of the power system; and 3) to provide, through the analysis of historical system LBMP congestion costs, information to market participants ~~where the addition of system upgrades could potentially improve the economic efficiency of the power~~about ~~system.~~historical congestion including the causes for that congestion so that market participants can make appropriately informed decisions; and 4) to coordinate the reliability assessment with Neighboring Control Areas.

3.1. Reliability Criteria

3.1.1. NERC: Establishes standards and policies for North America which includes the United States of America and the Provinces of Canada. The

NERC Operating Policies and Planning Standards can be found on the NERC web site at http://www.nerc.com/standards/.

3.1.2. NPCC: Establishes criteria, guideline and procedures which apply to the five areas comprising NPCC (New York State, the New England States, and the Canadian Provinces of Quebec, Ontario and the Maritimes) may be more specific or more stringent than NERC standards and policies by recognizing regional characteristics or reliability needs. The NPCC criteria, guides, and procedures can be found on the NPCC web site at http://www.npcc.org/CriteriaGuidesProcedures.htm. (1)

3.1.3. NYSRC: Establishes rules that apply to NYCA that may be more specific or stringent than NERC and NPCC by recognizing NYCA characteristics and reliability needs. NYSRC rules can be found on the NYSRC web site at http://www.nysrc.org/documents.html. See Reliability Rules Revision No. ~~3~~2, Version 7 (adopted May 9, 2003). (2)

3.2. Objectives

3.2.1. Reliability Needs Assessment

The baseline system as defined for the Annual Transmission Reliability Assessment (ATRA) (3) will be assessed to determine if it meets all the reliability criteria for both resource and transmission adequacy. The ATRA focuses on the first five years of the planning horizon. Reliability needs will be defined in terms of quantities and not necessarily in terms of specific facilities. For instance, the MW quantity of additional transfer capability or MW quantity of additional resources would be specified.

In addition, the baseline system will be evaluated for robustness against factors and issues identified through reliability scenario analysis that might adversely impact the reliability of the power system for years one through ten. This evaluation of the baseline system for robustness will only identify conditions under which the reliability ~~of the power system might potentially be at risk.~~criteria may not be met. It will not identify or propose additional needs.

3.2.2. Historic Congestion

The NYISO will prepare summaries and detailed analysis of historic congestion across the New York system. ~~In addition, the NYISO will conduct~~This will include analysis to identify the significant causes of~~the~~ historic congestion.

These reports will be based upon the definitions of congestion to be developed by the ESPWG.

4. Process

4.1. Overview

It has been stated that the planning process is as important as the plan itself, if not more important. This is certainly true for the initial planning process. The purpose of the ~~initial planning process~~Initial Planning Process is to facilitate the exchange of information between the NYISO, Market Participants and interested stakeholders regarding the future reliability of the NYCA power system and the historical economic performance of the transmission system. The ATRA will provide the baseline for the study for the first five years. The expansion plans used in these reliability assessments for the second five years will be those proposed by market participants based ~~participants.~~upon criteria to be developed during the implementation phase. In addition, alternate reliability scenarios will be developed in consultation with Market Participants. The key elements of the initial planning process are described further below. See **Attachment C** for the proposed timeline for the first ~~round of~~report resulting from the NYISO Initial Planning Process.

4.2. Input Stage (See Attachment D)

4.2.1. Baseline

The ATRA will be used to set the baseline for the study for the first five years of the Initial Planning Process.

4.2.2. Input Requirements

The input to be used ~~in the initial planning process~~for the second five years of the Initial Planning Process includes: published data sources, existing standard reliability assessments, data for additional reliability analysis, input from ~~neighboring~~Neighboring Control Areas, input from stakeholders, and input from the ESP Working Group regarding alternate reliability scenarios.

4.2.2.1. Load and Capacity Data Report

The~~2003~~ NYISO Load and Capacity Data Report (http://www.nyiso.com/services/documents/planning/pdf/2003_gold_book.pdf) will be the primary reference resource for the ~~initial planning study.~~Initial Planning Process.

4.2.2.2. Existing Reliability Assessments

The existing standard reliability assessments that will be used in the ~~initial planning study~~Initial Planning Process include:

- The ~~2003~~ NPCC New York Area Transmission Review (ATR) (4)
- The~~2003~~ NPCC New York Resource Adequacy Review (RAR) (5)
- The~~2003~~ NYSRC Installed Reserve Margin (IRM) Study(6)

4.2.2.3. Short Circuit Data

Ordinarily the ~~initial planning study~~Initial Planning Process would use the information from the NYISO Annual Transmission Reliability Assessment (ATRA). However, ~~because the 2003~~for 2003, the ATRA has been delayed for an indefinite period. Therefore, it will be necessary for the initial planning study to include a separate Short Circuit ~~assessment. Therefore, for the initial planning study the short circuit~~assessment whose database will be consistent with that of the 2003 NPCC New York Area Transmission Review (currently under development).

4.2.3. Input from Neighboring Control Areas

The initial planning study will use the most recent power flow data collected through the annual regional (NPCC) and inter-regional (NERC) base case development process as the primary reference resource for the ~~neighboring~~Neighboring Control Areas.

4.2.3.1. Forecasted Load, Facilities and System Conditions

The NYISO also will coordinate directly with the ~~neighboring~~Neighboring Control Areas to exchange additional supplemental information for the study including: forecasted load, significant new or modified generation and transmission facilities, and anticipated system ~~conditions.~~conditions.

4.2.4. Input from Stakeholders

In addition to information published in the NYISO Load and Capacity Data Report, the NYISO will solicit stakeholders directly for additional supplemental information for the initial planning study. This input will include:

- Transmission system – existing and planned additions – ~~TOs~~Transmission Owners
- Merchant transmission proposals – Merchant developers
- Generation additions/retirements – Generator Owners & Developers
- Demand response programs – Demand Response Providers

~~1.1.1.Baseline~~

~~The baseline will be developed based on the NYISO Load and Capacity Data Report, the existing reliability assessments, and the neighboring Areas and stakeholders input.~~

- Long-term firm transmission requests – NYISO and Transmission Owners

4.2.5. Reliability Scenario Development

The ESP Working Group will provide input regarding alternate reliability scenarios for additional reliability analyses. ~~Scenarios~~Reliability scenarios will be developed in two time frames: the next five years (first five years), and the next five years after that (second five years). Variables for consideration in the development of these reliability scenarios include:

- Load Forecast Uncertainty
- Fuel (prices and availability of supply)
- New Resources
- Retirements
- Transmission network topology (e.g., changes in procedures of lines that are normally open; change in contingencies based on breakers being operated normally open or closed; etc.)
- Limitations imposed by proposed environmental legislation

4.3. Analysis Stage

4.3.1. Historic Congestion

The NYISO will prepare summaries and detailed analysis up to the past year of historic congestion across the New York system. ~~In addition, the NYISO conduct~~This will include analysis to identify the significant causes of the historic~~congestion.~~

congestion.

4.3.1.1. Summary Reports

The NYISO will prepare various reports of historic congestion costs. These reports will be based upon the actual congestion data from the NYISO day-ahead market, and will include summaries, aggregated by month, such as:

- By NYCA
- By zone
- By contingency in rank order
- By constraint in rank order
- ~~•~~Total ~~$~~
- ~~•$/Mwh~~
- ~~Hours~~Dollars
- Number of Hours
- Congestion by major cause category
    - Construction
    - Forced Outage
    - Maintenance
    - No Outage

These reports will be based upon the definitions of congestion to be developed by the ESPWG.

4.3.1.2. ~~Selective~~Detailed Cause Analysis

The NYISO will perform an analysis to identify the cause of significant congestion levels. Such analysis will include the following elements:[1]

[1] Some of this information may be deemed sensitive and will need to be handled with care to protect national security interests.

- Identification of the cause of major transmission outages
- Quantification of the ~~impact on congestion costs for relieving significant system constraints~~market impact of relieving historic constraints.

4.3.2. Baseline Reliability Needs Assessment

The NYISO will evaluate the reliability needs of the New York system for the first five-year and second five-year baseline. The evaluation will address resource and transmission adequacy over both periods. It also will address short circuit fault duty only for the first five-year period, and will be consistent with ~~period.~~the ATRA process. The evaluation will be based on information from the existing standard reliability assessments (see ~~§4.2.1)~~§4.2.2.2) and additional reliability analysis will be performed to include the effects of input from Stakeholders and the ~~neighboring systems~~Neighboring Control Areas for the second ~~five-year~~five-year period.

The analyses for the baseline reliability needs assessment will first determine whether or not the baseline resources and transmission system would meet all applicable reliability criteria (per §3.1). Then, if any reliability criteria would not be met, additional analyses will be conducted to determine the additional resources and/or transmission that would be needed to meet criteria, and to determine the expected first year of need for those additional resources and/or transmission. ~~For the initial planning process, these needs, if any will be expressed in terms of incremental capability needed.~~ The study will not seek to identify specific additional facilities.

4.3.3. Evaluation of Alternate Reliability Scenarios (Robustness of Baseline)

After completion of the baseline reliability needs assessment, the NYISO will conduct additional reliability analyses for the alternate reliability scenarios specified by the ESP Working Group. These evaluations will test the robustness of the baseline needs assessment. The reliability needs may increase in some reliability scenarios and may decrease, or even be eliminated, in others.

4.3.4. Report Preparation

Once all the analyses have been completed, the NYISO will prepare a ~~draft report of the~~comprehensive report including assumptions, criteria and results.

4.4. Review Process (**See Attachment B)**

4.4.1. Stakeholder Review
~~Review:~~

At least two stakeholder review stages are anticipated in the Initial Planning Process. Following review of the Staff's ~~Final~~ Draft Report by TPAS and the ESPWG, it will be forwarded to the OC for a vote. Interested representatives from the Business Issues Committee ("BIC") are invited to attend the OC meeting at which the ~~Final~~ Draft Report is under consideration. Following the OC vote, the ~~Final~~ Draft Report will be transmitted to the Management Committee ("MC") for a vote.

4.4.2. Board Action

Following the MC vote, the ~~Final Draft~~ Report resulting from the NYISO Initial Planning Process, with working group, OC and MC input, will be forwarded to the NYISO Board for action. Upon acceptance by the Board, the report will be finalized by NYISO Staff.

5. Issuance of Final Report

Following Board acceptance, the NYISO Staff will issue the Final Report resulting from implementation of the NYISO Initial Planning Process to the marketplace. This report will identify potential reliability needs determined under various future reliability scenario assumptions and will provide reports and analyses of historic congestion costs.

This Report is intended to provide useful information to market participants as they consider alternative strategies for the future.

5.1. Follow-Up Discussions

In order to provide the maximum benefits to the marketplace for the information provided by the Initial Planning Process, the NYISO will provide various opportunities for market participants and other stakeholders to discuss the Final Report. Such opportunities may include presentations at various NYISO stakeholder committees, focused discussions with various sectors, and/or presentations in other public venues.

6. References

(1) NPCC Basic Criteria for Design and Operation of Interconnected Power Systems (A-2)

(2) NYSRC Reliability Rules For Planning and Operating the New York State Power System
(3) NYISO Open Access Transmission Tariff – Attachment S
(4) NPCC Guidelines for NPCC Area Transmission Reviews (B-4)
(5) NPCC Guidelines for Area Review of Resource Adequacy (B-8)
(6) NYSRC Policy 5
(7) NYISO Load and Capacity Report

7. Figures

Attachment A – Process Flow Chart

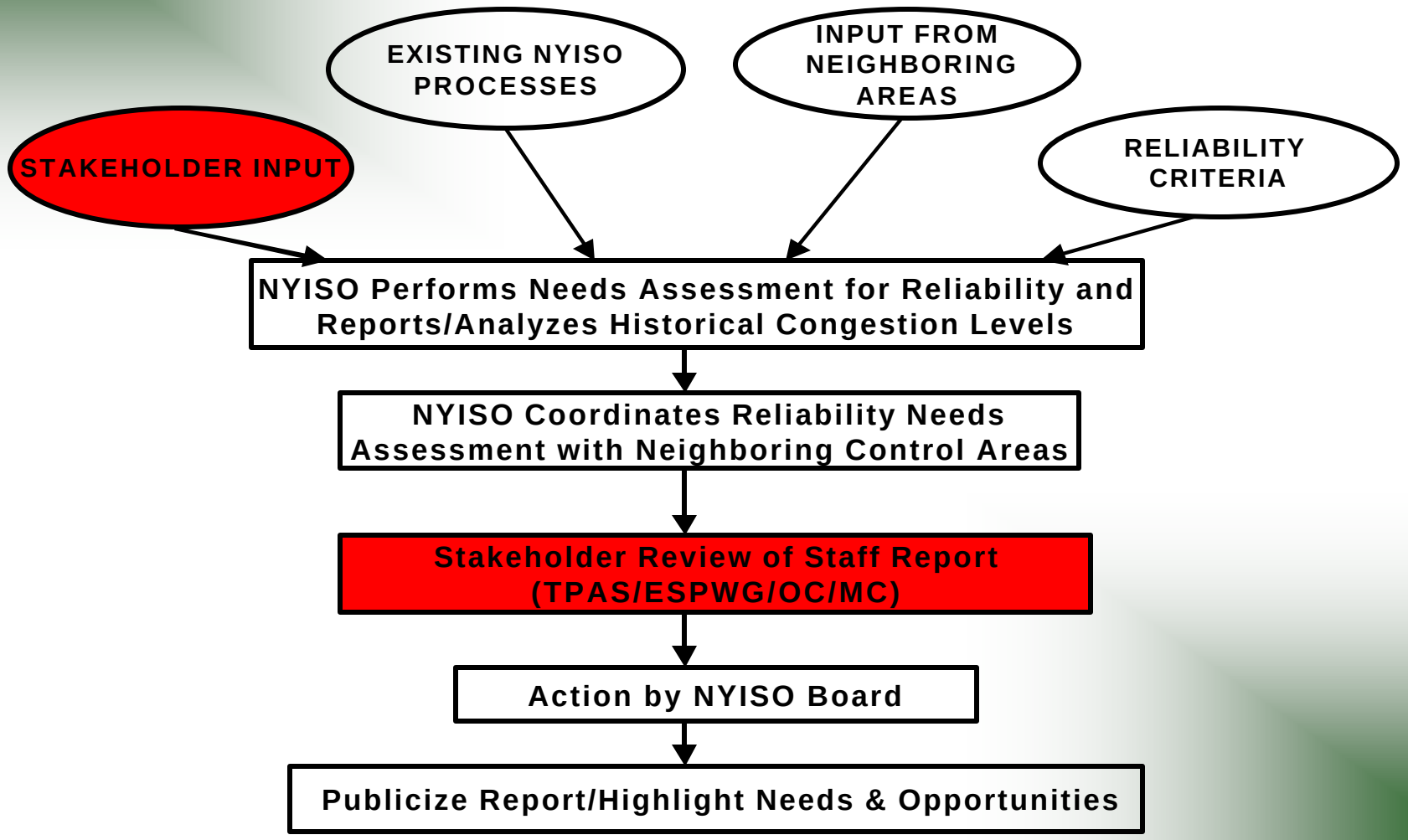
Attachment B – Stakeholder Participation

Attachment C – Timeline

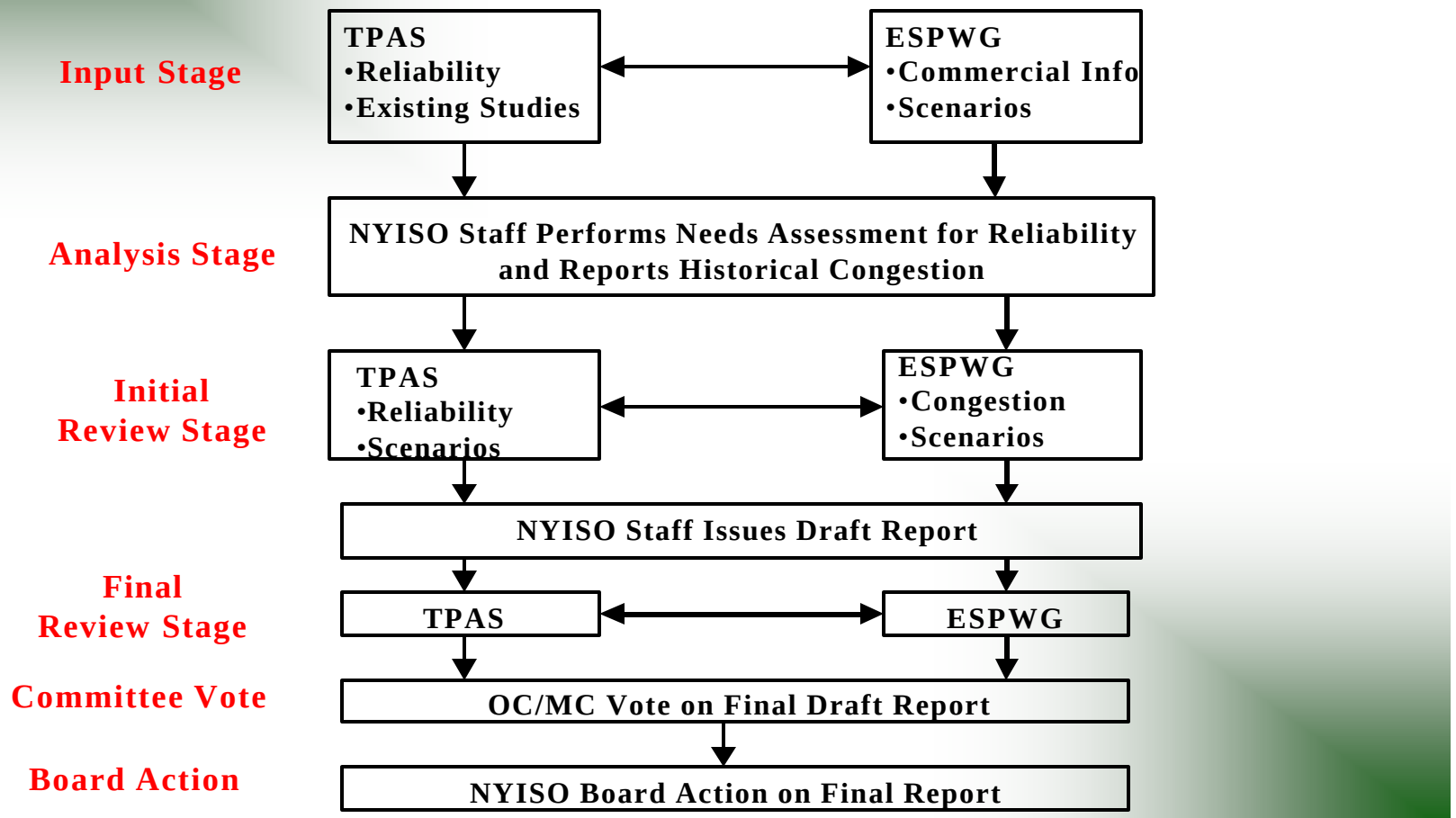
Attachment D – Process Inputs Chart

Attachment A

NYISO Initial Planning Process



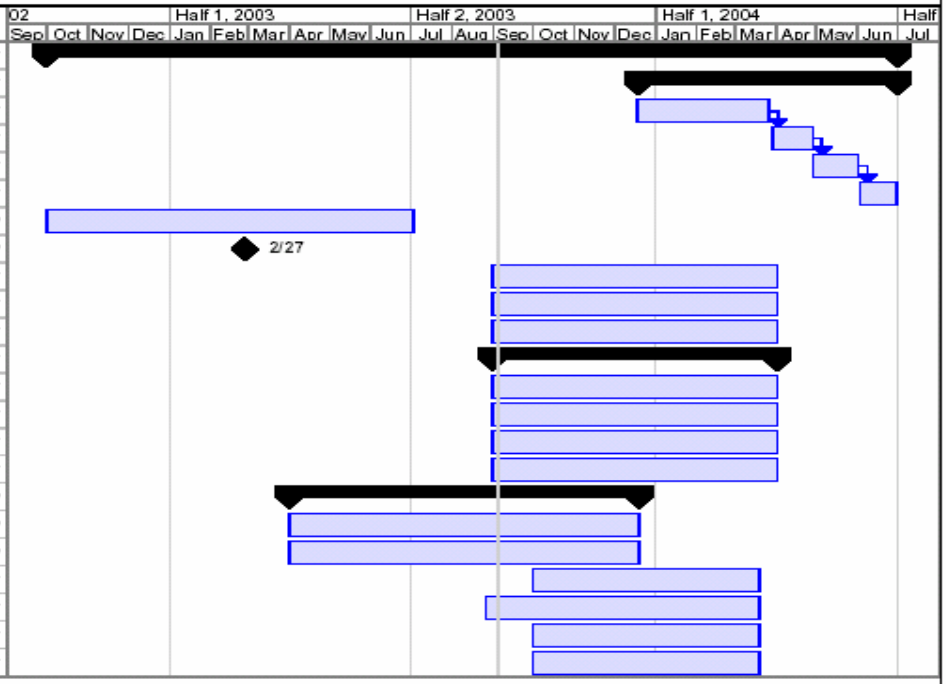
NYISO Initial Planning Process: Stakeholder Participation



NYISO Initial Planning Process
Timeline

Attachment C

ID	Task Name	Finish
1	Initial Planning Process	Wed 6/30/04
2	Initial Assessment Report	Wed 6/30/04
3	Develop Report	Fri 3/26/04
4	Committee Review (TPAS/ESPWG)	Wed 4/28/04
5	Committee Vote (OC/MC)	Tue 6/1/04
6	BOD Acceptance	Wed 6/30/04
7	Load and Capacity Data Book	Thu 7/3/03
8	Indentify Qualifying Interconnection Projects	Thu 2/27/03
9	Meetings with TO's & Neighboring CA's	Thu 4/1/04
10	Meetings with Stakeholder Groups	Thu 4/1/04
11	Review Operational Assessments	Thu 4/1/04
12	Issue Identification, Eg:	Thu 4/1/04
13	Fuel Diversity	Thu 4/1/04
14	Wind Integration	Thu 4/1/04
15	Environmental Regulations	Thu 4/1/04
16	Etc	Thu 4/1/04
17	Transmission Adequacy Assessments:	Fri 12/19/03
18	ATR	Fri 12/19/03
19	ATRA	Fri 12/19/03
20	Resource Adequacy Assessment	Fri 3/19/04
21	Develop Historical Congestion Analysis	Fri 3/19/04
22	Needs Assessment	Fri 3/19/04
23	Scenario Analysis	Fri 3/19/04



Project: Ini_plan_proc1
Date: Thu 9/4/03

Task
Split
Progress
Milestone
Summary
Project Summary
External Tasks
External Milestone
Deadline

Rev1, Thu 9/4/03

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Initial Planning Process Inputs

Attachment D