

IOGCC / FERC MOU Task Force
Santa Fe, New Mexico
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Topics of Discussion



- CO² Pipelines
- LNG
- Storage

FERC's Position on Siting CO² Pipelines



Background

In testimony before the Senate Committee on Energy and Natural Resources in January of this year, the Chairman noted that three different siting models could potentially be used going forward when considering the development of pipeline infrastructure used to transport captured CO². The Chairman noted that any of these three approaches could prove effective in overseeing a network of CO² pipelines

Siting Options



These three models are:

- **Option 1** – Using the current siting regime for CO² pipelines (mainly used for enhanced oil recovery), where the siting has been governed by state law, and operators of these interstate carbon dioxide pipelines are free to set their own rates and terms and conditions of service;
- **Option 2** – Using the oil pipeline model, where oil pipelines are sited under state law and FERC sets the transportation rate; and
- **Option 3** – Using the natural gas pipeline model, where FERC both sites interstate natural gas pipelines and sets their transportation rates.

FERC's Position on Siting CO² Pipelines



The Natural Gas Act of 1938 (NGA) was needed to address the problem of getting interstate natural gas pipelines sited. Development of such infrastructure was stymied at the time due to inaction by, and conflict among, the States. The NGA allowed the public interest of the nation to override any state and local laws or concerns governing infrastructure siting.

In his testimony, the Chairman noted that the situation present in 1938 does not currently exist with regard to siting CO² pipelines, and that the *status quo* (Option 1) is working to provide for the siting of adequate CO² pipeline infrastructure.

FERC's Natural Gas Pipeline Siting Process



- FERC Staff conducts a full review of proposal including construction impacts, engineering, rate, accounting, and market analysis
- Environmental review is included in an EIS

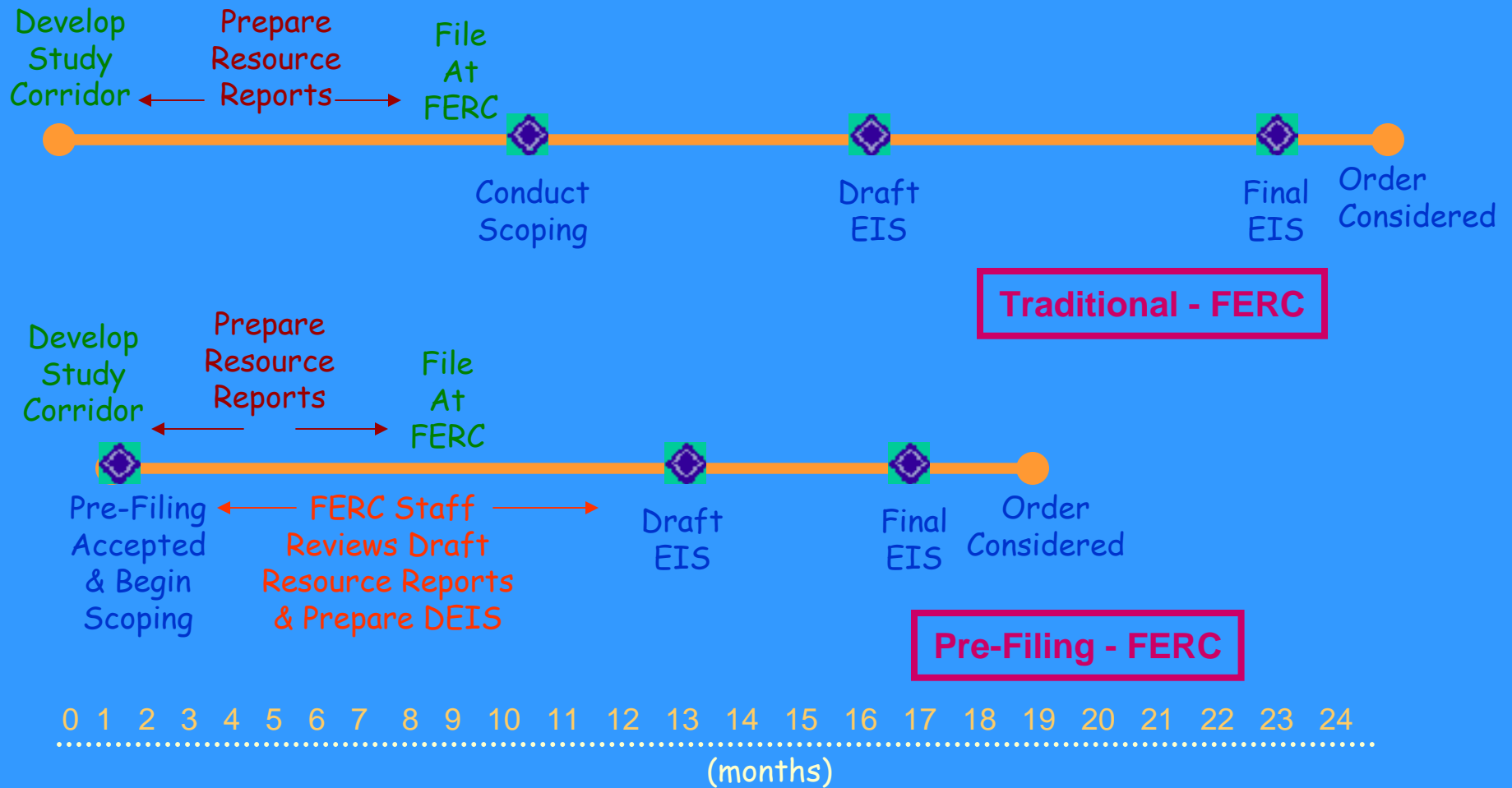
Commission's Pre-Filing Process



- More interactive NEPA process
- Earlier, more direct involvement by FERC staff, other agencies, landowners
- Goal of "no surprises"
- Time savings realized only if we are working together with stakeholders
- FERC staff is an advocate of the Process, not the Project



Standard Timelines Traditional vs. Pre-Filing Process



Why Does FERC Prepare the EIS?



- Regulatory Requirements
 - National Environmental Policy Act (NEPA)
 - Council on Environmental Quality (CEQ) regulations for implementing NEPA
 - FERC regulations for implementing NEPA
- EIS is an element of the Commission's review of the project
- EIS is not a decisional document

Opportunities for Public Involvement



The FERC Process:

- FERC Issues Notice of the Application
- Project Sponsor Sends Landowner Notification Package
- SCOPING - FERC Issues *Notice of Intent* to Prepare the NEPA Document
- Public Meeting(s)

Public Input:

- File an Intervention
- Contact the project sponsor w/questions, concerns; contact FERC
- Send letters expressing concerns about environmental impact
- Attend scoping meetings

Opportunities for Public Involvement (continued)



The FERC Process:

- Issue Notice of Availability of the DEIS
- Public Meetings on DEIS
- Issue the FEIS
- Issue a Commission Order

Public Input:

- File comments on the adequacy of DEIS
- Attend public meetings to give comments on DEIS
- Public may comment on FEIS
- Intervenors can file a request for Rehearing of a Commission Order

Regulatory Changes & LNG



FERC's Policy Statement on Gas Quality
and Interchangeability (GQI)

Policy Statement on Gas Quality and Interchangeability



- (1) Only natural gas quality and interchangeability specifications contained in a Commission-approved gas tariff can be enforced;
- (2) Pipeline tariff provisions on gas quality and interchangeability need to be flexible to allow pipelines to **balance safety and reliability concerns with the importance of maximizing supply**, as well as recognizing the evolving nature of the science of underlying gas quality and interchangeability specifications;

Policy Statement on Gas Quality and Interchangeability



- (3) Pipelines and their customers should develop gas quality and interchangeability specifications based on technical requirements;

- (4) In negotiating technically based solutions, pipelines and their customers are strongly encouraged to use the NGC+ interim guidelines as a common reference point for resolving gas quality and interchangeability issues; and

Policy Statement on Gas Quality and Interchangeability



- (5) To the extent pipelines and their customers cannot resolve disputes over gas quality and interchangeability, those disputes can be brought before the Commission on a case-by-case basis to be resolved based on a record of fact and technical review.

Existing LNG Terminals

10.7 Bcf/d



Everett	1.0 Bcf/d
Cove Point	1.0 Bcf/d
Elba Island	1.2 Bcf/d
Lake Charles	2.1 Bcf/d
Gulf Gateway	0.5 Bcf/d
Freeport LNG	1.5 Bcf/d
Sabine Pass LNG	2.6 Bcf/d
Northeast Gateway	0.8 Bcf/d

Under Construction – 8.4 Bcf/d



Gulf LNG	1.5 Bcf/d
Sabine Pass LNG Expansion	1.4 Bcf/d
Elba Island Expansion	0.9 Bcf/d
Cameron LNG	1.8 Bcf/d
Golden Pass LNG	2.0 Bcf/d
Cove Point Expansion	0.8 Bcf/d

Authorized – 20.65 Bcf/d



Corpus Christi LNG

Vista del Sol

Weaver's Cove Energy

Ingleside Energy

Crown Landing LNG

Port Arthur Terminal

Calhoun LNG

Creole Trail LNG

Freeport LNG
Expansion

Cameron LNG
Expansion

Bayou Casotte Energy

Broadwater Energy

Bradwood Landing

Storage Infrastructure

More is better...



"The Commission believes that expansion of storage capacity may help reduce volatility in natural gas prices. The goal is clear: reduce volatility in gas prices, by encouraging expansion in gas storage capacity."

- *Statement of Chairman Joseph T. Kelliher on Gas Storage Pricing Reform*; December 15, 2005; Docket Number: RM05-23-000

Regulatory Changes & Storage



- Final Storage Rule (Order 678)
- Blanket Certificate Rule (Order 686)
- Revisions to Capacity Release (Order 712)

Order No. 678



Order No. 678 (aka the Storage Rule) took a two-prong approach to spur storage development:

- First, it made revisions to the method the Commission uses to evaluate potential market power in the context of natural gas storage; and
- Second, it implemented the new Natural Gas Act section 4(f), enacted as part of the Energy Policy Act of 2005.

Prong One – Revisions to Current Market Power Screens



Redefinition of the Relevant Product Market

- Non-storage products may serve as good alternatives to storage when screening for market power

Good Alternatives

- Available pipeline capacity, local gas production, LNG, and released transportation capacity

Caveat

- The burden is on the applicant to show that these alternatives can be substituted for storage

Prong Two – Section 312 of EPO Act 2005 / NGA 4(f)



Eligibility Requirements

Only applies to new storage capacity related to a specific facility placed in service after the date of enactment – expansions to existing storage facilities would qualify

Required Showing

Applicants must show:

- that market based rates are necessary to encourage the construction of storage capacity in the area needing storage service; and
- how customers will be protected from market power abuses

Prong Two – Section 312 of EPO Act 2005 / NGA 4(f)



FERC's Responsibility

Section 4(f) also requires the Commission to “review periodically whether the market-based rate is just, reasonable, and not unduly discriminatory or preferential.”

The Final Rule notes that FERC will rely on existing reporting requirements and publicly available data, along with staff monitoring of storage markets to meet the periodic review requirement

Certification Process

Authorizations are proceeding apace...



"There is little to be improved in the Commission's processing of certificate applications once those applications have been filed" and "There are few changes to the current authorization process that would accelerate the process beyond its current efficient state."

- Petition for Rulemaking by NGS&A and INGAA:
Revisions to the Blanket Certificate Regulations and Clarification Regarding Rates (RM06-7-000)

Blanket Certificate Program Expansion – Final Rule



- Extends Blanket Certificate eligibility to mainlines, storage field facilities, and facilities transporting revaporized LNG or a mix of synthetic and natural gas
- New projects subject to prior notice so that FERC staff and the public can ensure
 - New activities do not adversely affect existing customers' rates and services
 - New activities do not have an adverse impact on environmental, safety, and security issues

Blanket Certificate Program Expansion – Final Rule



- Rule expands timeframes of landowner notification under automatic authorization from 30 to 45 days and from 45 to 60 days for prior-notice applications
- Raised cost limits from \$8.2 million to \$9.6 million for automatic authorization and from \$22.7 million to \$27.4 million for prior-notice projects
- Clarifies that a Natural Gas Company is not necessarily engaged in an unduly discriminatory practice if it charges customers different rates based on the date customers commit to service

Blanket Certificate Program Expansion – Final Rule



How the Storage Program is Affected:

- Prior to Order 686 blanket certificate authority did not generally extend to storage field facilities
- The expanded blanket certificate authority extends to certain storage field activities but “is not intended to include storage reservoirs that are still under development or reservoirs which have yet to reach their inventory and pressure levels as determined from their original certificated construction parameters”

Blanket Certificate Program Expansion – Final Rule



- The expanded blanket certificate authority allows storage field remediation and maintenance activities under automatic authorization
 - Annual reporting requirements in 157.207 were modified to include these activities.
- All other storage field activities (within cost limitations and noted exception) are allowed under the prior notice provisions.

Revisions to Capacity Release Program – Order 712



The Capacity Release Final Rule implemented two major changes to the Commission's capacity release policies:

- First, it lifts the maximum rate ceiling on secondary capacity releases of one year or less
- Second, it exempts: (i) capacity releases involving asset management arrangements from the Commission's prohibition on tying capacity releases to any extraneous conditions, and (ii) capacity releases made as part of an asset management arrangement from the existing bidding requirements

Capacity Release Program and Storage



Storage capacity holders are also exempted from tying prohibitions thus allowing a releasing shipper to include conditions in a release concerning the sale or repurchase of gas in storage inventory, even outside the context of an asset management arrangement.

This permits shippers releasing storage capacity to require the replacement shipper to (1) take title to any gas in the released storage capacity at the time the release takes effect, and (2) return the storage capacity to the releasing shipper at the end of the release with a specified amount of gas in storage.

Capacity Release Program and Storage (cont.)



How does this benefit the storage industry?

It should facilitate more summer releases of storage by alleviating the problem that the releasing shipper gets the capacity back at the end of the summer, but does not have enough time to refill...more flexibility in storage operations makes storage investment more attractive.

LNG and Storage... Can you say Symbiosis?

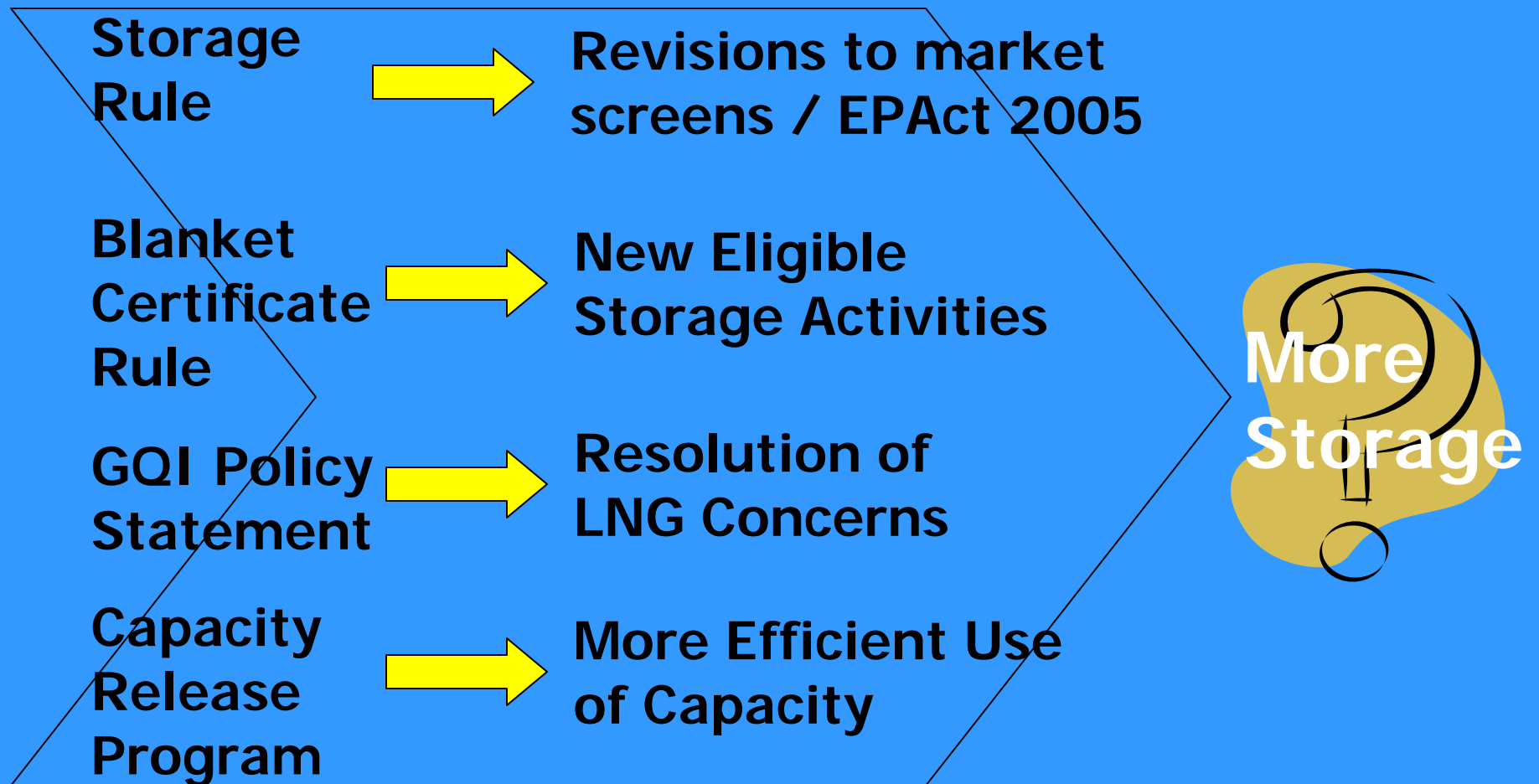


Because of market demand in Europe, Atlantic Basin LNG cargoes are being delivered to US markets primarily during late Spring, Summer, and early Fall...

Yet demand for Natural Gas in the US is lowest during this period...

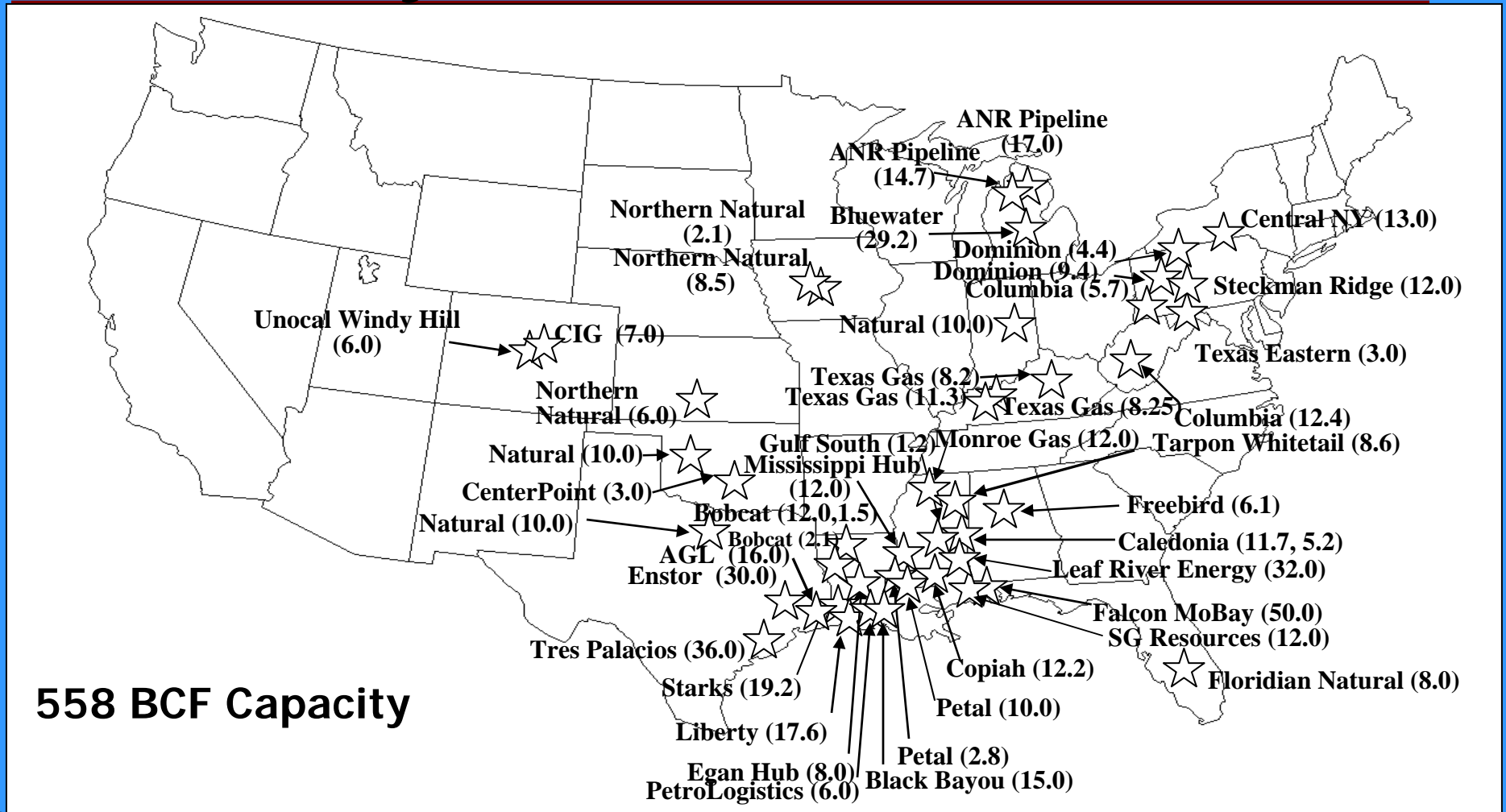
Storage provides a solution to this conundrum!

Regulatory Changes, Storage Impacts and Results...

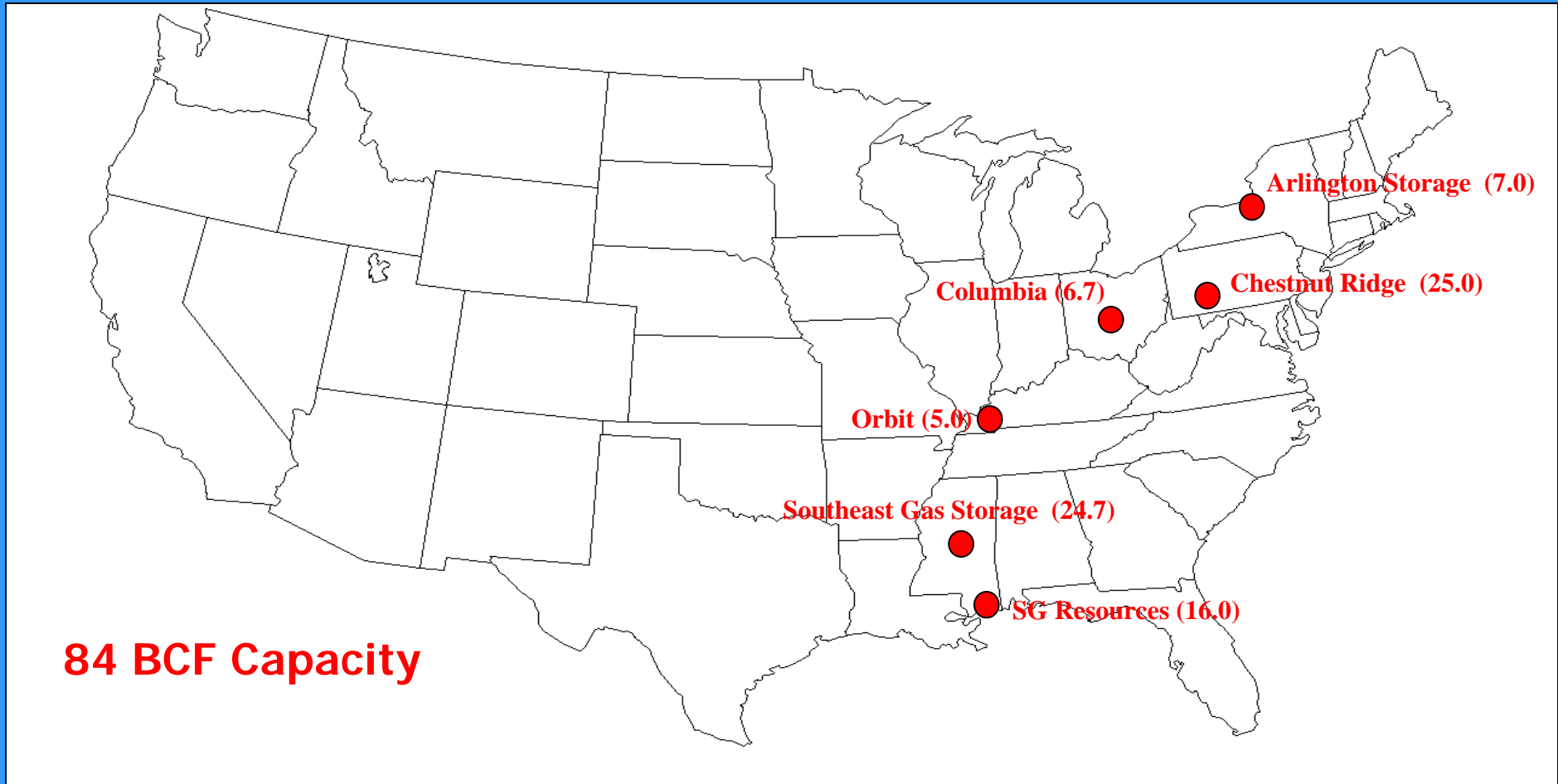


Storage Projects (Capacity in Bcf)

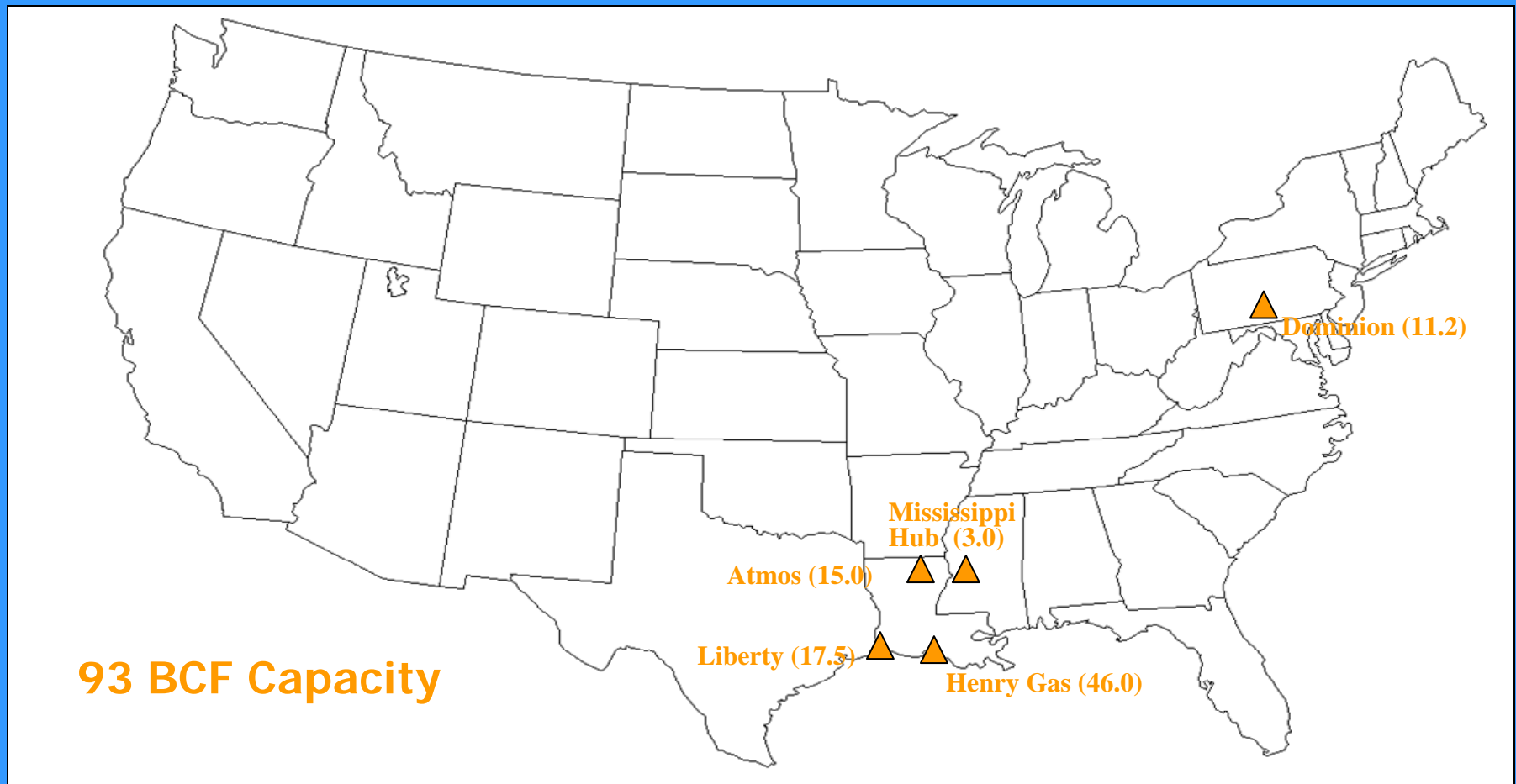
January 2005 to November 2008



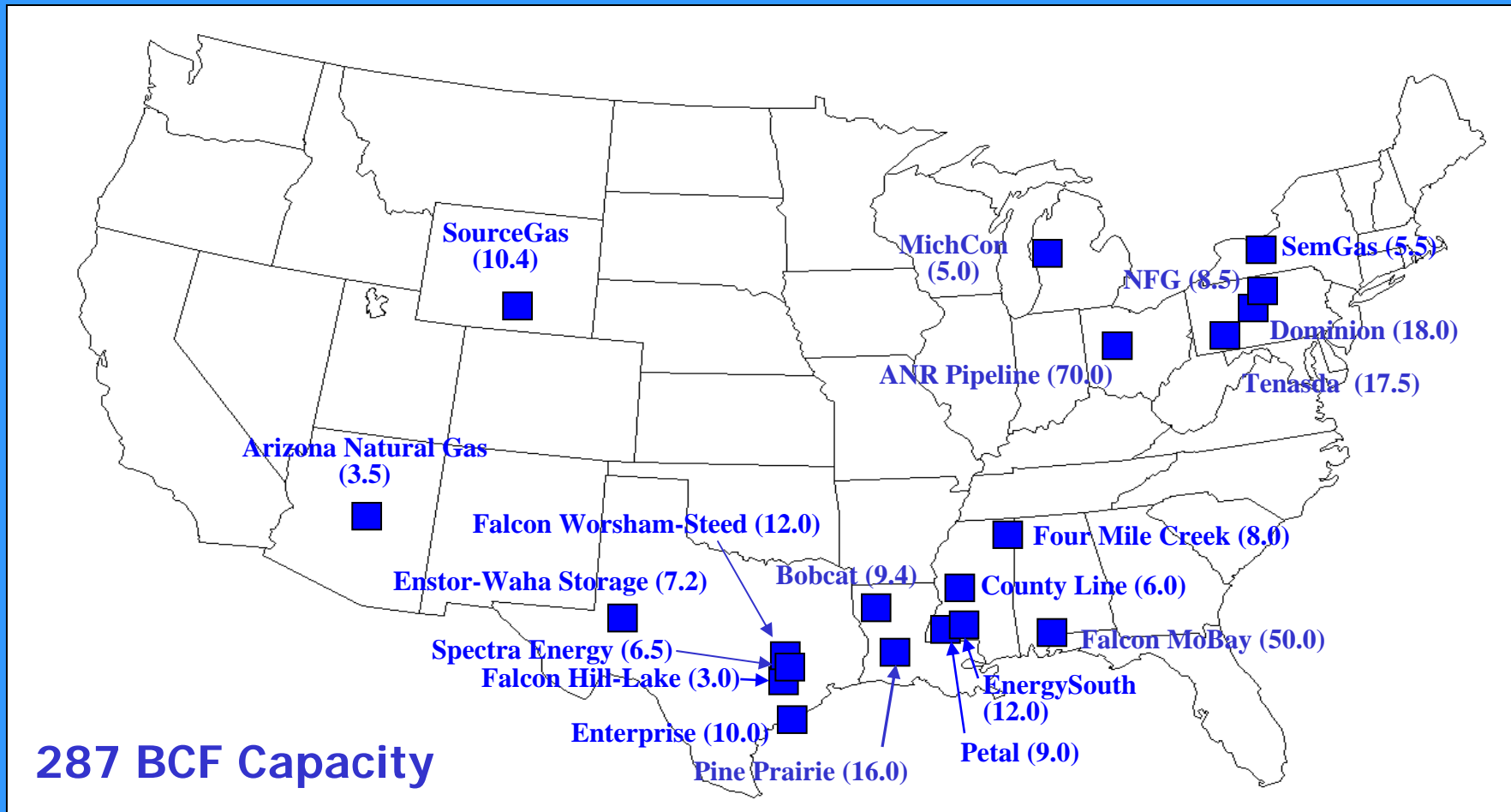
Storage Projects Pending (Capacity in Bcf) *November 2008*



Storage Projects in Pre-Filing (Capacity in Bcf) *November 2008*



Projects on the Horizon (Capacity in Bcf) *November 2008*



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