Federal Permitting Outlook

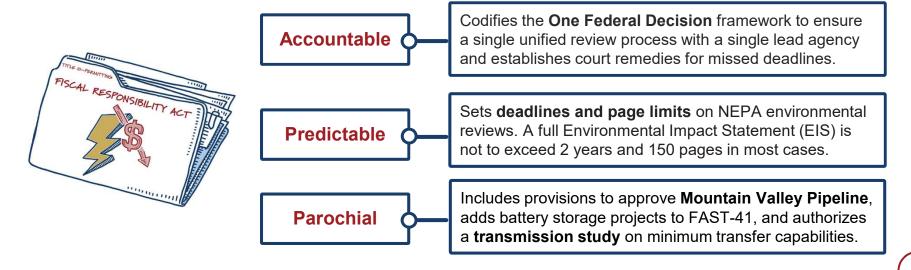
June 23, 2023



Limited Permitting Provisions Included in the Debt Ceiling Deal

The *Fiscal Responsibility Act* codified parts of the BUILDER Act, which is the first change to the National Environmental Policy Act in decades.

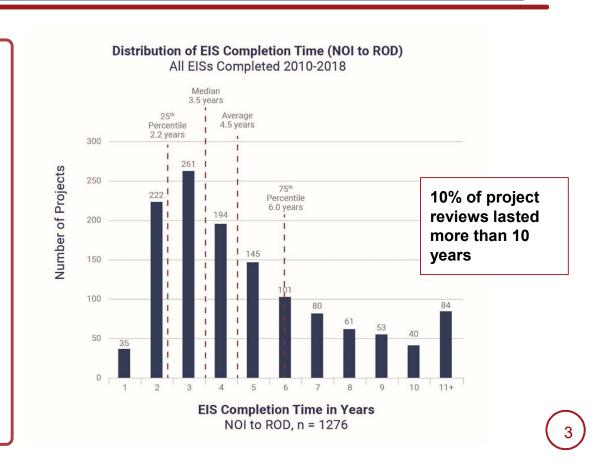
Much more must be done. While discussed in some shape or form, the bill did not include preclearance, litigation reform, pipeline reviews, critical mineral and/or transmission policies, and these could be key components of meaningful reform in future negotiations.



Current Permitting System is Slow and Broken, For All Types of Energy

Addressing NEPA is Only One Piece of the Puzzle

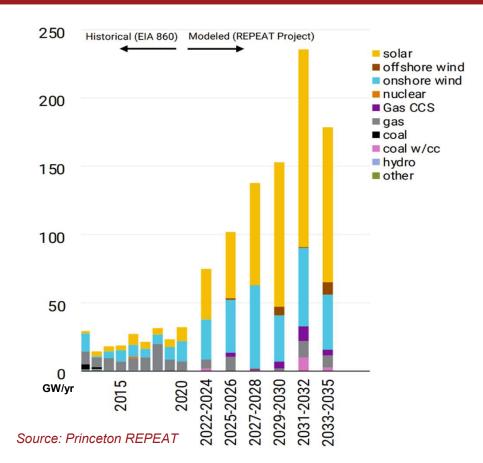
- 42% of the DOE's active NEPA projects are related to clean energy, transmission or conservation.
- CEQ's 1978 regulations and guidance recommended an EIS normally be less 300 pages even for actions of unusual scope and complexity, and the timeline should not exceed 1 year.
- ENACTED The Fiscal
 Responsibility Act established 2 year
 deadlines for reviews and allows
 agencies to repurpose past
 environmental documents



The Problem is About to Get Worse as New Policies Take Effect

More projects mean more permits

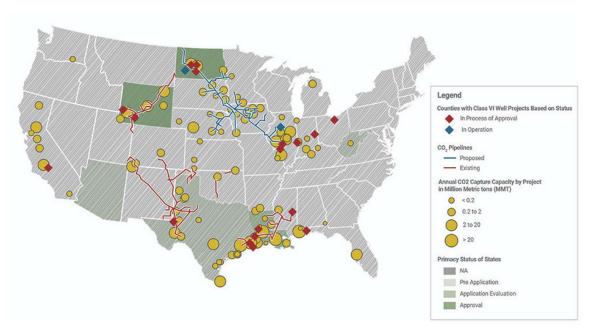
- New policies, including the tax incentives, will dramatically increase the number of new projects across all types, with heavy focus on clean energy.
- To reach net zero emissions, for example, we'll need to permit ~1000 major projects every year through 2050. Today we only permit dozens at this scale. It's an order of magnitude kind of change.
- Even with the NEPA changes enacted in the FRA, there is much more to be done.



Carbon Capture Projects Face a Growing Permitting Backlog

45Q incentives will languish without additional capacity

- Federal Class VI permitting is totally stalled. The EPA currently has a backlog of 70+ projects in the queue
- The Biden Admin's net-zero goal implies a buildout of up to 60,000 miles of CO2 pipelines and 650 Class VI sequestration wells
- State primacy efforts have frozen in this administration with 4 states awaiting federal approval
- Colorado and Pennsylvania have recently announced their intent to apply for primacy.

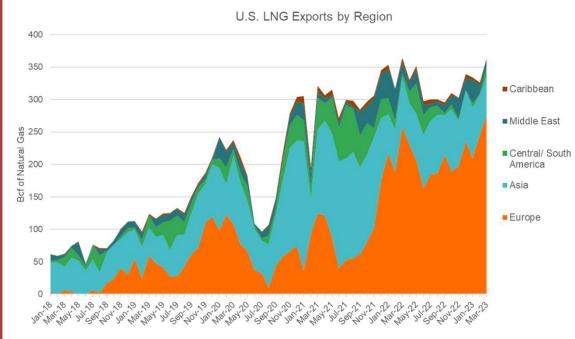


Sources: ClearPath analysis, CATF US Carbon Capture Map, Rextag CO2 Pipelines, and EPA Class VI Well Tables

Increased US LNG Exports are Necessary for Global Energy Security

Europe represents a growing share of US LNG Exports

- More US LNG for Europe has meant less supply for other regions.
- We need to triple U.S. LNG exports in order to permanently end Europe's dependence on Russia.
- The Marcellus, our largest producer and most effective energy weapon against Russia, is boxed in due to lack of domestic pipeline capacity.
- Expediting approvals for new export terminals represents significant opportunity to meet demand and boost US competitiveness.



Source: EIA Natural Gas Monthly

Growing Need to Reshore Critical Mineral Supply Chains

Political Challenges Block Permitting for Critical Minerals

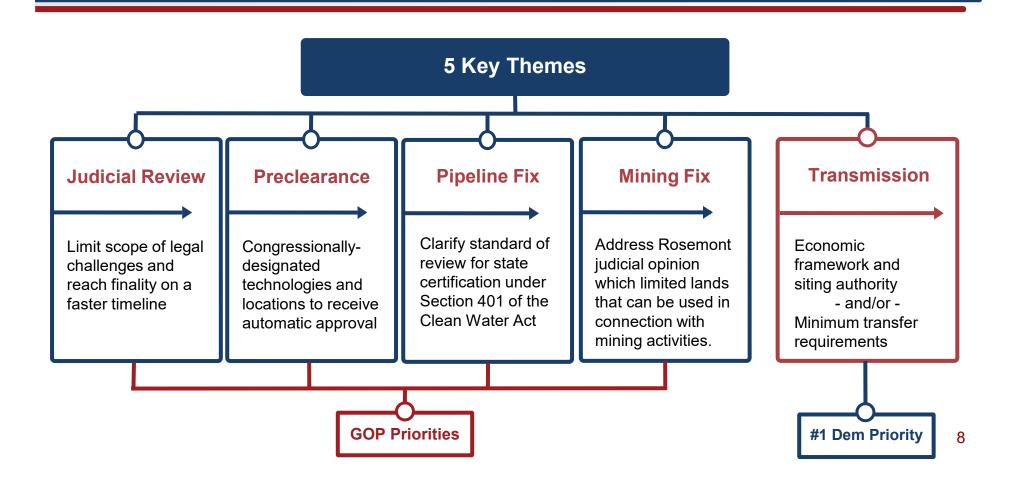
- Critical mineral projects face political uncertainty from one Admin to the next. Twin Metals MN and Resolution Copper are prime examples.
- In the global race to a new energy economy, we shouldn't depend on other countries for critical materials when we have abundant resources here at home.
- Lithium demand is expected to grow by 42 times today's consumption; Graphite by 25x; Cobalt by 21x; and Nickel by 19x.

MEDIUM TERM 2025-2035



Source: DOE 2023 Critical Minerals Assessment

The Components of a Broader Permitting Deal Are Coming Into Focus



Preclearance is Key to Deploying Projects at Scale and On Time.

Streamline Criteria for Federal Review

- Large infrastructure projects deliver major benefits for affordable, reliable, secure, clean energy, but are most likely to be stuck in permitting purgatory.
- Preclearance can radically reduce the type and number of environmental permits required to be reviewed by Federal agencies
- Congress should legislatively designate technologies and locations that meet certain criteria for automatic approval

Pre-qualified Technologies

- Legislate approval for technologies with limited environmental impact, that reduce emissions from existing facilities, or that lead to global emissions reductions.
- Examples include LNG export terminals, CO2 pipelines, H2 pipelines, Critical mineral projects, energy facilities on public lands, transmission lines, etc.

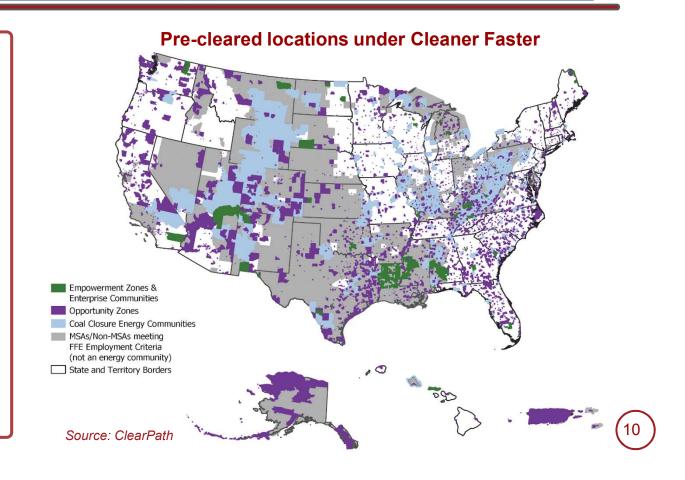
Pre-qualified Locations

- Similarly, prequalify locations that are ideal candidates for energy development where environmental impacts are lowest, or where Congress has directed incentives.
- Examples include existing infrastructure sites,
 brownfields, former military bases, enterprise zones,
 opportunity zones, energy communities, etc.

Examples of Precleared Geographic Areas

Identify high priority areas for new energy deployment

- The Inflation Reduction Act created a 10% credit bonus for clean energy projects located in certain areas.
- These designations include many areas that are on the Biden Admin's Justice-40 matrix.
- Pairing Energy Communities with additional congressionally approved zones expands the map to encompass more than 50% of the country.



Solution Set for Judicial Review



Uncertainty after permits have been issued increases financing costs for projects. Limiting adjudication both in time and scope can address these challenges.

Establish the Permitting Review Reach finality in under 1 year **Board** to administratively resolve A predictable resolution date is disputes on a set timeline Legal Venue **Timing** more important than shortening Elevate further challenges to statute of limitations to file a appellate courts, similar to challenge provisions in the Federal Power Act Set and enforce deadlines for Require challengers to exhaust all other procedural remedies first issues remanded to the agency Scope of **Standing** Merely restricting standing only to Remand only to address any Challenges commenters doesn't resolve identified deficiencies without underlying issues vacating associated permits.

Problem Requires a Paradigm Shift

Core Takeaway

U.S. may need to double the capacity of the grid by 2050 to meet expected energy demand. Building new infrastructure at that pace is ecologically essential, technologically feasible, and economically achievable, but procedurally impossible.

Immediate Approvals

 For energy projects where impacts are well understood, grant immediate permitting approval

Expedited Approvals

 For projects where unique or extenuating circumstances exist, address those concerns through an expedited review process

State & Local Conformity

 Use either a carrot or stick approach to require state and local permitting requirements to match federal processes

Expedite Judicial Review

 Require any and all adjudications to reach finality in under one year so project financing is not jeopardized.