

NPDM

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US RENEWABLES Q3 UPDATE

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NPM DEMO**

“NPM is simply the best information source for real-time information on renewable energy developments & developers, allowing us to identify & connect with those who would benefit from our services.”

Altus Group

EXECUTIVE SUMMARY

NPM is a leading market research & events company covering the US & European renewable energy, storage, data center & power markets. We deliver a one-stop-shop research solution with coverage of everything from permitting & interconnection to contracted power & capital markets activity, along with associated market participants.

NPM's 35+ person content team enables significant time savings efficiencies, market know-how & business development value by taking on time consuming, challenging yet critical market research tasks.

KEY COVERAGE INCLUDES

- Interconnection Queues & Developer Pipelines
- Development & Deal Flow Intel & Data
- Generation Supply & Load Demand
- Local Permitting Research
- Company & People Data
- IRP, RFP & PPA Tracking

SUBSCRIPTION OPTIONS

- US UTILITY SCALE
- US DISTRIBUTED GENERATION
- US DATA CENTERS
- EUROPE RENEWABLES
- EUROPE DATA CENTERS

KEY FEATURES

- Interconnection Queues & Rankings
- Signals (Permitting & Project Updates)
- RFP & PPA Tracking
- Intelligence & Analysis
- Transactions
- Company & People profiles

"It's not just news aggregation-they have reporters creating proprietary and enhanced content, connecting it to their database and past articles"

SVP, Solar Project Development at Developer

QUEUE UPDATE: Approximately 49% of MISO DPP-2022 cluster applications withdraw; 86 developers impacted

1 Aug 2025 | Origination Queue Updates Reports & Analysis

NPM has identified 378 applications and 63 GW that have withdrawn from the MISO DPP-2022 cycle. The cycle consisted of 911 queue applications that means approximately 32% of the cycle now has a withdrawn status. The DPP 2022 Phase 1 Study Report was released by MISO on 15 July 2025.

“The 2022 generation interconnection study cycle is MISO’s largest cycle ever. The high level of transmission costs is not unexpected given the number of projects in the queue,” said Susan Gille, a spokesperson for [Alliant Energy](#).

“We expect, as seen with past interconnection cycles, a material number of projects to drop out as the process progresses. We are actively managing projects we have in the queue to achieve reasonable transmission costs for our customers.”

The 15 July report listed the network upgrade costs for each of the 778 remaining applications. As of 4 August 2025, 400 applications remain in the queue meaning the DP-2022 cluster withdrawn percentage is 49%. The most prominent developer withdrawals were:

- [NextEra Energy Resources](#)- 50 applications - 9.79 GW
- [Invenergy](#) - 42 applications - 7.03 GW
- [Pattern Energy](#) - 18 applications - 4.44 GW
- [Engie Group](#) - 7 applications - 2.98 GW
- [Apex Clean Energy](#) - 17 applications - 2.78 GW

Notably NextEra withdrew four applications (two solar-storage projects) with a Point of Interconnection at White Bluff EHV 500kV in Jefferson Arkansas. NPM's POI data shows an additional 30 pre-operational applications with this POI. To explore other POI impacted by the withdrawn applications [click through and expand each POI](#) i.e. [hit Wolf Creek | MS](#) to see Pattern Energy's three impacted applications.

The developers with the highest average cost per MW were:

- [Hodson Energy](#) - USD 2,316,367
- [Silicon Ranch](#) - USD 1,900,378
- [Natel Energy](#) - USD 1,795,197
- [Solis Renewables](#) - USD 1,225,399
- [Circle Power](#) - USD 1,197,063

The sectors with the highest upgrade cost per MW were:

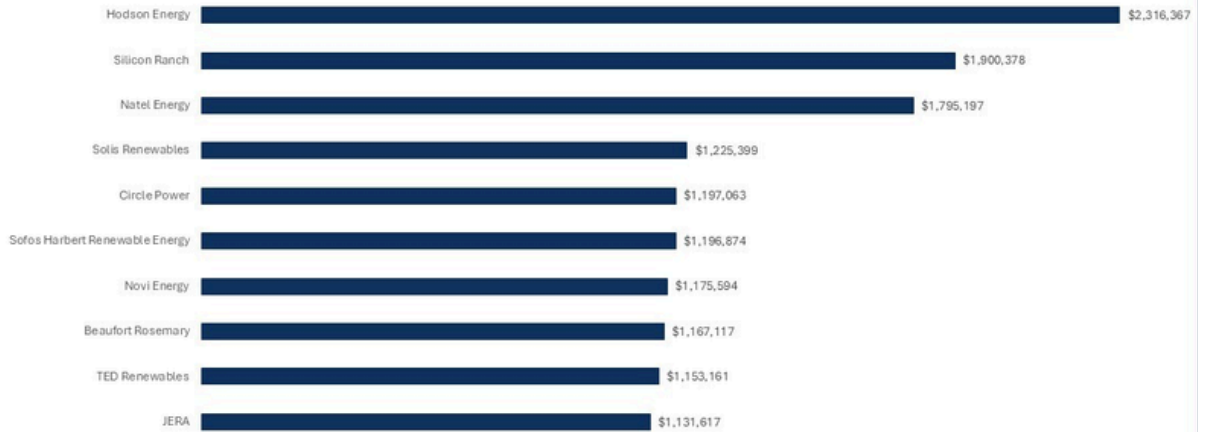
- Hydro-electric - USD 1,667,559
- Solar | Storage - USD 740,001
- Solar - USD 613,340
- Onshore Wind | Solar | Storage - USD 477,287
- Onshore Wind - USD 419,712

The states with the highest upgrade cost per MW were:

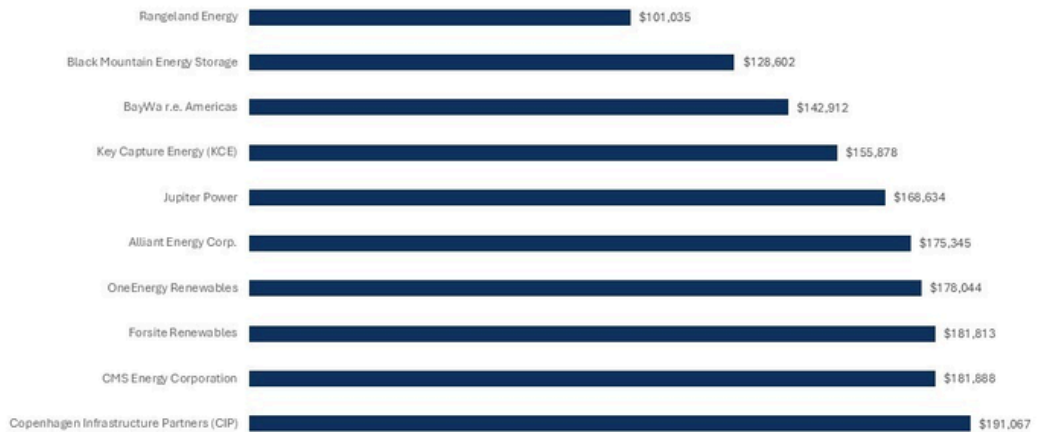
- Louisiana - USD 912,590
- Mississippi - USD 870,891
- Texas - USD 761,637
- North Dakota - USD 735,743
- Arkansas - USD 628,627

See below for several charts visualizing this data.

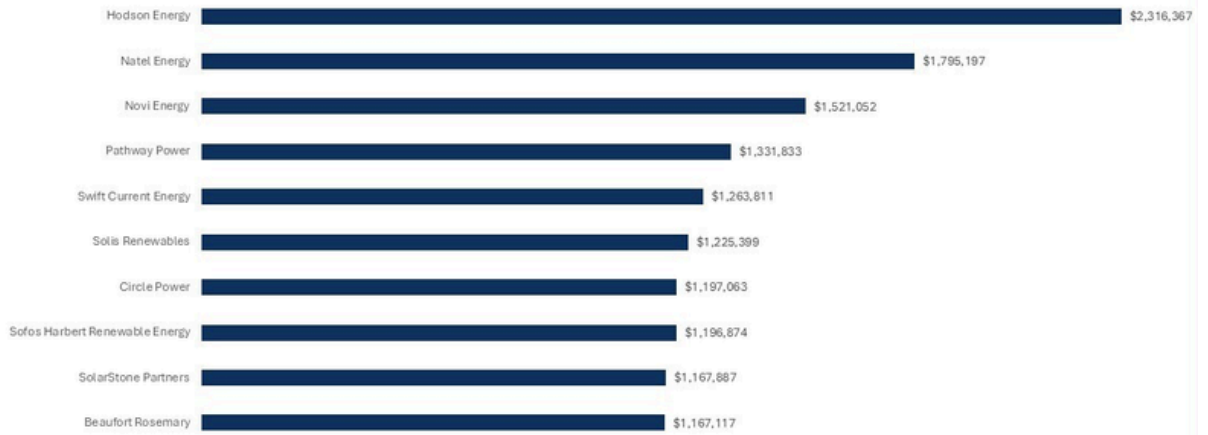
Developers - Average Upgrade Cost per MW (Most Expensive)



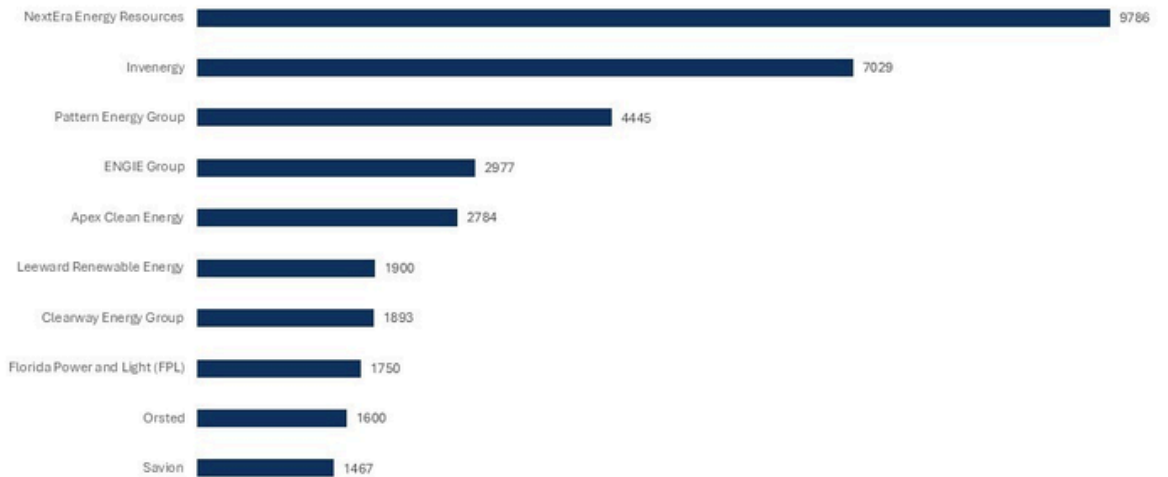
Developers - Average Upgrade Cost per MW (Least Expensive)



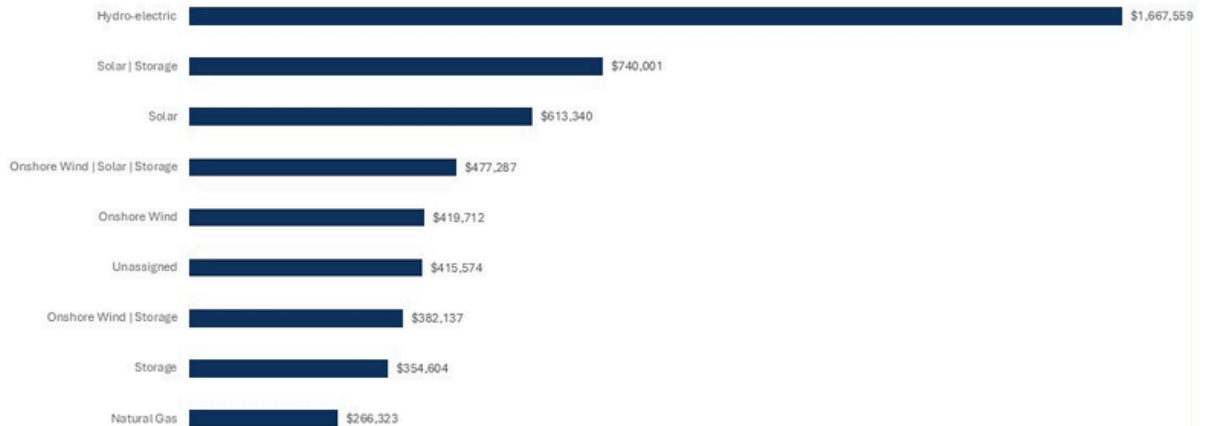
Withdrawn Developers – Average Upgrade Cost per MW



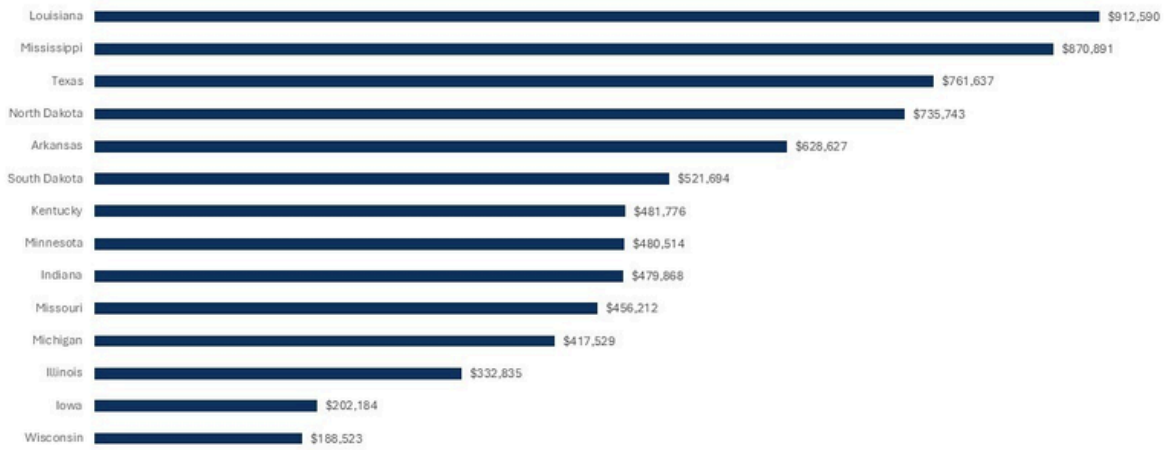
Withdrawn Developers – Total MW



Sectors - Average Upgrade Cost per MW



State – Average Upgrade Cost per MW



DG DEVELOPMENT & FINANCE FORUM 2025

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MIDTOWN EAST, NYC



POWER PURCHASE DATA: 1,744 solar and wind power purchase transactions analyzed

1 Aug 2025 | Reports & Analysis

NPM has scraped and identified over 5,400 power purchase transactions from 2024 Form 1 filings of which 1,744 are solar or wind. The analysis identifies the top offtakers, projects within solar and wind. The full dataset consisting of 5,400 power purchases is available in [Signals > Datasets > Power Purchasing](#).

Power purchases refer to agreements where utilities buy electricity from external generators rather than producing it themselves. These transactions are reported in FERC Form 1 filings to ensure transparency and regulatory oversight of utility operations and costs. While these filings capture a significant portion of utility procurement, they may not reflect all purchasing activity—especially short-term or unregulated market transactions.

About Form 1: *FERC Form 1 is an annual financial and operational report filed by major electric utilities and licensees under the jurisdiction of the Federal Energy Regulatory Commission (FERC). It includes detailed data on revenues, expenses, assets, liabilities, energy sales, transmission, and generation statistics. The form must be filed electronically by April 18 each year for the prior calendar year. Entities required to file include major investor-owned utilities and licensees involved in generation, transmission, or distribution of electric energy across the U.S., excluding federal agencies and municipalities.*

Top Offtakers (Buyers)

1. Pacific Gas and Electric Company - 62,951,084 MWh
2. Consolidated Edison Company of New York, Inc. - 43,493,128 MWh
3. PSEG - 42,592,486 MWh
4. Commonwealth Edison Company- 30,947,984 MWh
5. Georgia Power Company - 30,818,315 MWh

Top Solar Projects (Sellers)

There were at least 1,365 solar projects from the ones we could identify. Here are the top projects:

1. Gemini Solar + Storage Project (Primergy Solar | Arevia Power) - 1,587,271 MWh
2. Topaz Solar Farm (First Solar) - 1,068,326.4 MWh
3. Arizona Solar 1, LLC (Arizona Solar One) - 828,183 MWh
4. Arroyo Solar, LLC (Centaurus Renewable Energy) - 754,558 MWh
5. Agua Caliente Solar (First Solar) - 653,150 MWh

Top Wind Projects (Sellers)

There were at least 378 wind projects from the ones we could identify. Here are the top projects:

1. Lakeswind Power Partners (Rockland Capital) - 6,116,960.5 MWh
2. Bronco Plains Wind LLC (NextEra Energy Resources)- 1,111,817 MWh
3. Roosevelt Wind Ranch LLC (EDF Group) - 1,084,927 MWh
4. Rock Creek Wind LLC (Invenergy) - 1,081,770 MWh
5. Palo Duro Wind LLC (NextEra Energy Resources) - 1,016,222 MWh

Note: The rankings exclude grid operators such as MISO and CAISO, as well as developers whose energy sources for purchases are unclear.

NPM Interconnections Podcast

Recent Episodes

Episode 160: Roy Xu | Peninsula Clean Energy

On this week's episode, [Roy Xu](#), Senior Director of Power Resources at [Peninsula Clean Energy](#) (PCE) joins Jillian Ward to discuss the shifting landscape that new energy projects are facing in the wake of the US budget reconciliation bill passage. Xu also shares his view on how the energy market for California could evolve over the next few years as a result.

August 05

Episode 159: Jon Rodriguez | Wärtsilä

On this week's episode, Andrew Burnes is joined by [Jon Rodriguez](#), Energy Business Director for Engine Power Plants at [Wartsila](#) to discuss the huge lead times the natural gas industry is facing in the wake of a massive spike in demand driven by data center load growth.

July 22

Episode 158: Hannan Happi | Exowatt

NPM's Kyle Younker is joined on this week's podcast by [Hannan Happi](#), co-founder and CEO of [Exowatt](#), a startup delivering modular, dispatchable solar power solutions tailored to meet the exploding energy demand from AI and data centers.

July 08

Episode 157: Ingmar Helmke | Tion Renewables

On this episode, NPM Europe editor Peter Kneller is joined by Tion Renewables CEO [Ingmar Helmke](#) to discuss the flexibility that being an IPP provides and strategies for incorporating BESS into the renewables generation mix.

July 01

Episode 156: Abby Hopper & Eric Goodwin | SEIA & OMCO Solar

Abby Hopper, President and CEO of the [Solar Energy Industries Association \(SEIA\)](#), and Eric Goodwin, Vice President of Business Development for [OMCO Solar](#), join the NPM podcast this week.

June 26

Episode 155: Chris McKissack | Fullmark Energy

[Chris McKissack](#), president and CEO of Fullmark Energy, joins the podcast this week to discuss the state of play for standalone storage developers, strategies to manage through tariffs and near-term threats to sunset tax credits and later, discuss how Fullmark is being flexible this environment.

June 24

Episode 154: Amanda Niklaus | Ingrid Capacity

Ingrid Capacity's global head of markets, [Amanda Niklaus](#), is this week's guest on the podcast, joining NPM's Jon McNair to discuss her company's battery storage plans across various markets in Europe.

June 19

Episode 153: Timothy Radcliff | Denham Capital Management

[Timothy Radcliff](#), managing director at Denham Capital Management, joins the NPM podcast to discuss broader investing trends in energy and digital infrastructure.

June 17

ANALYSIS: Pre-NTP capital continued to get deployed through 1H25 even as solar and wind tax credits would eventually sunset earlier under the OBBBA

31 Jul 2025 | Financing Origination Reports & Analysis

- **Multiple forms of financing continue to support pre-NTP development**
- **Current environment is slowing down offtake negotiations**
- **Pure-play developers challenged under new tax credit regime**

Even as prospects for future US clean energy development looked dim as 1H25 progressed in certain corners, developers continued to receive billions of debt finance to support pipeline development.

This continued to run the gamut of banks, to private credit lenders and various structures as it relates to the collateral supporting the facilities.

All told clean energy developers, according to NPM, tapped roughly USD 7bn in loans, supporting pre-NTP funding, from January 2025 to July 2025. This came amidst both sides of Congress issuing multiple drafts of the tax reconciliation bill which contemplated an earlier sunset of tax-neutral credits for solar and wind projects and ultimately the July 4th passage of the One Big Beautiful Bill Act (OBBBA).

“These development credit facilities have come in many flavors, depending on what the developer needs and what is inside the development portfolios,” said Mike Lorusso, head of Energy Finance at [First Citizens Bank](#).

“Thus, the levels of risks vary. Risks are higher in a single-asset development facility, which lenders try to avoid, and lower in a portfolio of development assets, or with revenue from operational assets. But there are ways to mitigate risks, from creating a well-diversified portfolio to having guarantees from creditworthy parent companies,” he added.

These deals ranged from small credit lines to fund interconnection and power purchase agreement (PPA) security requirements and equipment deposits, like [Lightshift Energy's USD 40m credit line](#) closed in July with [Aiga Capital Partners](#), to the [largest holdco credit facility in 1H25](#) led by [Natixis](#) for [Invenergy's](#) affiliate [Invenergy Renewables Operating I LLC](#), which upsized to USD 2.5bn an existing USD 1.5bn revolving credit facility, leveraging cashflows from its operational fleet of renewables assets to fund development of clean capacity.

Borrowers have tapped into multiple sources of credit, signing up to a variety of structures with different risks profiles. The implementation of a new regulatory framework after the passing of the OBBBA raises questions about potential risks hidden underneath the structures of some pre-NTP financings.

In June, [Arevon Energy](#) closed a [USD 600m credit facility](#), with the option to increase up to USD 850m, intending to fund its expanding portfolio of renewable energy projects across the US. It featured provisions for green loan reporting and sustainability-linked metrics.

“Unlike debt deals backed by pre-NTP portfolios, the USD 600m credit facility that Arevon closed is a corporate revolver structure supported by cash flows from operational assets, also known as a CAFD [Cash Available for Distribution] facility,” said Deirdra Redmon, Arevon’s vice president-treasurer in an interview with NPM.

“While we have flexibility in how the proceeds are allocated, we chose to designate it as a green loan and are using it to continue developing new renewable energy projects,” she added.

Meanwhile, Apollo-backed [Apterra Infrastructure Capital](#) presented clients with a slightly different strategy. Apterra led three pre-NTP credit facilities in the period, including the [USD 260m senior secured facility](#) for [Onyx Renewables \(Onyx\)](#), which may be increased to USD 350m, the upsizing of [Longroad Energy Holdings’s pre-NTP credit facility to USD 1.075bn](#), and the [upsizing of Aypa Power’s corporate credit facility to USD 1.05bn](#).

“The pre-NTP portfolio credit facilities led by Apterra are conservatively structured,” said Apterra’s co-CEO Ralph Cho. “The collateral package consists of operating, construction and development assets. However, only the cashflows from construction and operating assets are considered when sizing up and modeling the credit facilities. Any development assets in the future that achieve NTP will be accretive to the financing and will eventually trigger an upsizing event for borrowers.” “We term these as pre-NTP facilities because the proceeds raised are directly used to support development of the borrower’s pipeline. Typically, these are not intended to be used as dividend recaps,” he added.

Portfolios that include pre-NTP projects are priced at a premium. Spreads are anywhere from 350bps to 650bps, depending on the borrower’s track record and relationship with the lender, according to the [Cost of Capital Outlook](#) hosted by Norton Rose Fulbright early this year. Lenders that work with clients to fund portfolios comprised mostly of pre-NTP projects are not average commercial banks. Some are government-backed entities with the specific mandate to support clean energy or green and sustainable infrastructure. Others are specialized lenders willing to tackle more risks for a bigger yield.

According to [takeaways from a webinar hosted by McDermott Will & Emery](#) back in 2022, when the renewables industry grew in scale and matured, the sources of capital diversified. A wider group of lenders showed interest in providing pre-NTP financing, including large credit funds, Environmental, Social and Corporate Governance (ESG) funds, boutique finance groups, family offices and oil and gas companies and corporations.

To underwrite pre-NTP financings, lenders must understand typical risks and delays associated with the project development process. They need to be flexible and ready to accommodate development delays and other unexpected issues that arise as a project is brought to market, including flexibility related to amendments and consents, to address changes in a project’s timeline as it progresses toward NTP. To a large extent, development capital takes a bet on a development team, on the experience of the management, and track record of success, the McDermott document stated.

“Regarding the outstanding pre-NTP credit facilities that were closed before, the take out of that debt was traditionally construction financing,” said David Markey, partner at [Foley & Lardner](#) and chair of the firm’s Infrastructure subsector. “The embedded risks for the lenders that have high exposure to pre-NTP facilities in their portfolios, lies with the developer ability to access take out financing, whether it be construction financing or other types of debt or equity.”

The value question post-OBBBA

The OBBBA passage brought at least two consequential impacts: a rush to build to meet substantial construction thresholds and COD dates that are required to bring projects to safe harbor and adapting to a future landscape where tax credits will no longer be available.

“What we are seeing now is developers reevaluating and reprioritizing their development pipelines,” said Lorusso. “Projects in late-stage development – ones that can start or finish construction in the shorter term – are receiving all the focus and resources. So developers require capital, and lenders are providing support in the form of letters of credit to secure interconnection agreements or offtake contracts, signing equipment financings and other forms of credit, as long as the projects are well advanced,” he added.

“Capital has loosened up, considerably more with the OBBBA passage as a number of folks see the fundamentals of growth and power demand, while also taking note of the much higher costs associated with greenfield natural gas projects and scarcity of equipment,” added one renewable energy developer.

While developers focus their effort on pushing projects towards NTP and construction, the industry has yet to evaluate the effects of the new legislations on pre-NTP projects, still at very early stages of development.

“The market is digesting the impact from the OBBBA and waiting for guidance on topics like the FEOC rules and start of construction,” Markey pointed out.

“The market will take some time to decide on how to value development pipelines, whether for equity investments or secured credit. For developers with a lot of pre-NTP projects in the pipeline, the question is, how many of those projects they will be able to safe harbor, how do they continue to fund development and business operations before getting more certainty, and, in the longer term, potentially negotiating higher power prices,” he added.

Pure-play developers that are not IPPs could be the most vulnerable now. Without the backing of a strong parent company willing to guarantee financing, access to capital can be challenging and smaller developers will be at most risk of having to sell at discount, cancel or write down projects, while navigating a time of fever-pitch volatility.

“Probably the biggest impact from the regulatory changes is on the equity side,” Lorusso mentioned. “The value of development pipelines must be down, in line with how many early-stage projects it includes. Offsetting that though, is that the late-stage projects’ value might have come up, given the growing power demand. Offtakers often prefer to secure contracts today, rather than facing the uncertainty in price possibility that prices might be higher in years ahead.”

Yet, several developers told NPM that “costs are popping from every corner”, naming tariffs, cost of capital, more stringent due diligence, EPC contractors rising prices, all elements that make it more difficult to produce credible budgets to use in negotiations with potential offtakers and lenders alike.

“For the wider industry, this change in tax credits, regulations, and tariffs makes it difficult for renewables developers to execute PPA agreements with offtakers,” mentioned Robert Krakauer, CFO at Arevon. “That is something we are noticing, a slowdown industry wide in closing offtake contracts, which overall increases the risk profile of the sector.”

Nevertheless, a wider consensus suggests that the hurdles are temporary, but that the industry at large will thrive when the framework becomes clearer and the rules of the game are established. The industry executive noted that formal FEOC guidance is not expected to come out until the end of 2026.

Even without energy tax credits and other subsidies, power from renewable sources remains more competitive. Regarding financing, the US is unique in using the tax code as incentive for green energy development and US sponsors will adapt to conditions shared by the rest of the world.

“After all the dust is settled, the industry will be fine, because plenty of capital has been raised to be invested and America needs energy that can be deployed cost efficiently and quickly,” Markey asserted. “It is a matter of adapting to the new set of rules, figuring out some new ways of deploying capital. Those who adapt thoughtfully will continue to be successful in this market,” he concluded.



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