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Building Bigger More Often: Trends and Impacts in the New Frontier of Megaprojects

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AUTHORED ARTICLE | Summer 2022

This article originally appeared in the Summer 2022 edition of *Development Incentives Quarterly*.

In the United States and globally, megaprojects are becoming more common across the economic development landscape. This article will discuss the recent increase in the number of megaprojects across the U.S.; what communities are doing to attract them; and what impacts such large-scale projects are having on communities and other economic development projects.

What Are Megaprojects?

Megaprojects are generally defined as projects with more than \$1 billion in capital expenditures that may result in thousands of new full-time jobs. These projects occur across a wide variety of industries: automotive manufacturing, life sciences, aerospace, defense and others. Because of their scale, these projects are characterized by their potentially transformative effect on local communities and regional economies.

Why Are Megaprojects Becoming More Common?

Megaprojects were only 3% of the total construction projects that broke ground in 2013, but that figure grew to 33% by 2018.¹ Researchers have estimated that the total cost for megaprojects in the U.S., in terms of "Construction Put in Place"², will grow from \$50 billion in 2019 to \$350 billion by 2029.³ Several factors appear to contribute to the current rise in megaprojects. First, economies of scale and the concentration of production facilities allow companies to save money during a time of rising raw material costs. Second, new technologies are making the design and construction phase of megaprojects more efficient, such as with the digitization of building design to overlay cost and time over 3-D models and the automation of internal project bookkeeping.⁴ Third, spurred in part by industry changes from the COVID-19 pandemic, companies are increasingly "reshoring" by making new large-scale investments in the U.S. when they previously would have built projects

abroad.⁵ Fourth, producing semiconductors, electric vehicle batteries and other products in the advanced manufacturing sector entails a very complex production process that cannot scale up to meet future demand without costly megaproject-scale investments in new facilities.⁶ Finally, megaprojects are politically popular in the U.S. and are garnering the support of different levels of government because they represent “the revitalization of American manufacturing”.⁷

How Are Governments Attracting New Megaprojects?

In the U.S., state and local governments are taking proactive steps to attract megaprojects. Local governments and public-private partnerships are creating publicly owned, shovel-ready project sites, coordinating public utilities and infrastructure and preparing materials to pitch to prospective companies. It may take several years of careful planning between a region’s economic development stakeholders before a site is ready to be offered up for a potential megaproject.

Jurisdictions across the country are also crafting economic development incentive tools to specifically attract megaprojects. Several states have recently put in place incentives geared towards megaprojects, including Idaho, Illinois, Kansas, Kentucky, Ohio and Oklahoma. States have even developed narrowly tailored incentive tools to cater to specific megaprojects. For example, Pennsylvania created a specifically tailored incentive in an effort to land the Shell ethylene cracker plant. Pennsylvania Act 85 of 2012 created a tax credit for industries using ethane in manufacturing processes.⁸ Because the tax credit required at least \$1 billion in capital investment and the creation of at least 2,500 full-time equivalent jobs, in practice it could only apply to Shell’s cracker plant.⁹

What Are The Local Impacts Of Megaprojects?

Successful megaprojects are inherently transformative, but each one will have a different impact on local economies and day-to-day life depending on the jurisdiction. Projects do not occur in a vacuum and there are likely to be ripple effects that can impact other projects and nearby communities.

A region’s workforce can be dramatically affected by the arrival of a megaproject. The initial construction phase of a project can strain a region’s building trade workforce. If a single megaproject will occupy thousands of construction jobs over a number of years, other companies doing their own building projects may struggle to ensure that their own construction workforce needs are met.¹⁰ Years before megaproject construction is complete however, the educational institutions of entire regions will have to collaborate to create a talent pipeline for the employees that will perform the day-to-day work of a megaproject. For example, Central Ohio’s community colleges, trade schools and state universities are developing new programs to ensure that there are enough credentialed individuals to fill a variety of new positions in semiconductor manufacturing at the Intel megaproject.¹¹

Similar to concerns about other companies having to compete with megaprojects for a workforce, projects may have to compete for a limited number of viable sites. There have been recent instances where projects, some fairly significant in size, have been turned away from a site by a community because the community is reserving the project site or sites for a megaproject.

State and local governments may have to take major steps to improve their public transportation, roads, public utilities and other infrastructure in order to accommodate a megaproject. For example, a particular site might not be considered for a megaproject if it is not able to supply enough electricity or water capacity. Alternately, a megaproject may use up so much of a community's water or electrical capacity, companies looking to locate nearby may have to look for a project site elsewhere in order to meet their utility needs.

Finally, megaprojects can bring positive impacts to the local community in more ways than the typical benefits associated with such projects (increased jobs, new taxes generated, etc.). There have been numerous examples of companies that bring megaprojects to a region and then take significant steps to act as a good neighbor and foster good will with nearby communities. This includes significant investments in local schools and non-profit organizations, the creation of mixed-use space on corporate campuses for other local businesses and the launch of sustainability initiatives.¹²

Conclusion

The economic development landscape is dynamic, and megaprojects are an increasingly important way that companies are choosing to grow. Vorys encourages you to contact your Vorys attorney or advisor with questions about the megaproject economic development incentives. Please feel free to contact the following Vorys attorneys: Scott J. Ziance, 614.464.8287, sjziance@vorys.com; Christopher J. Knezevic, 614.464.5627, cjknezevic@vorys.com; Sean P. Byrne, 614.464.8247, spbyrne@vorys.com; Jonathan K. Stock, 614.464.5647, jkstock@vorys.com or R. Elissa Wilson, 614.464.6224; rewilson@vorys.com.

About The Author

This article was authored by Eli Redfern, a third-year law student at The Ohio State University Moritz College of Law, who clerked with Vorys during the summer of 2022.

¹ Sabine Hoover, Megaprojects: Changing the Conversation, FMI Construction Industry Round Table, 3 (2019) https://fmicorp.com/uploads/media/Megaprojects_2019.pdf; see also Starts and Permits, Nat'l Assoc. of Home Builders (2022) <https://www.nahb.org/news-and-economics/housing-economics/national-statistics/starts-and-permits>.

² Construction Spending, U.S. Census Bureau (May 2022) <https://www.census.gov/construction/c30/c30index.html> ("Construction Put in Place" cost data includes 1) labor and materials, 2) architectural and engineering services, 3) overhead, 4) interest and taxes paid during construction, and 5) contractor's profits).

³ Sabine Hoover, Megaprojects: Changing the Conversation, FMI Construction Industry Round Table, 3 (2019) https://fmicorp.com/uploads/media/Megaprojects_2019.pdf.

⁴ See e.g. Atif Ansar, Why Megaprojects Need a Tech Revolution: Lessons from Carillion, Future of Construction (Mar. 8, 2018) <https://www.futureofconstruction.org/blog/why-megaprojects-need-a-tech-revolution-lessons-from-carillion/>.

⁵ Tony Uphoff, 3 Underreported Trends That Will Accelerate Reshoring, Forbes (Aug. 24, 2020) <https://www.forbes.com/sites/tonyuphoff/2020/08/24/3-underreported-trends-that-will-accelerate-reshoring/?sh=64895f8c668e>; Andrew Fish and Honora Spillane, Reshoring advanced manufacturing supply chains to generate good jobs, Brookings (July 2020) https://www.brookings.edu/wp-content/uploads/2020/07/BrookingsMetro_RecoveryWatchEssays_Reshoring-Strategy_FINAL.pdf.

⁶ See Bradley Ramsey, The Complicated (And Expensive) Process of Manufacturing Semiconductors, Supplyframe <https://supplyframe.com/articles/complex-expensive-manufacturing-semiconductors/>.

⁷ President Joseph Biden, State of the Union Address (Mar. 1, 2022) (noting, “[t]he rebirth of the pride that comes from stamping products ‘Made in America.’”) <https://www.whitehouse.gov/briefing-room/speeches-remarks/2022/03/01/remarks-of-president-joe-biden-state-of-the-union-address-as-delivered/>.

⁸ 2012 Pa. Laws 751, No. 85.

⁹ Brad Bumsted, Pennsylvania tax incentive plan played major role in luring Shell cracker plant, Tribune-Review (June 7, 2016) <https://archive.triblive.com/business/local-stories/pennsylvania-tax-incentive-plan-played-major-role-in-luring-shell-cracker-plant/>.

¹⁰ See e.g. Jennifer Beahm, Filling the gap: Shell’s cracker a game changer for construction industry, Pittsburgh Business Times (Oct. 26, 2017) <https://www.bizjournals.com/pittsburgh/news/2017/10/26/filling-the-gap-shells-cracker-a-game-changer-for.html>.

¹¹ Virginia Brown, How Ohio colleges are building a “Silicon Heartland” workforce ready for Intel, Columbus CEO (May 24, 2022) <https://www.columbusceo.com/story/business/briefs/2022/05/24/how-ohio-colleges-building-intel-ready-workforce/9613478002/>.

¹² See e.g. Josh Schoettler, Building on progress at Amazon’s HQ2 in Arlington, Virginia, About Amazon (Apr. 23, 2022) <https://www.aboutamazon.com/news/job-creation-and-investment/building-on-progress-at-amazons-hq2-in-arlington-virginia>.