taxnotes federal

Volume 170, Number 4 ■ January 25, 2021

Using the Sun to Power Data Center REITs

by Dominique Gallego

Reprinted from *Tax Notes Federal*, January 25, 2021, p. 573

Using the Sun to Power Data Center REITs

by Dominique Gallego

Dominique Gallego

Dominique "Monique" Gallego is a tax partner at Sidley Austin LLP in New York. She thanks Manuel Gallego for his input on the energy industry.

In this article, Gallego argues that investment in solar-powered data centers through real estate investment trusts could address the twin goals of helping left-behind communities catch up with the digital economy and meeting the country's renewable energy goals.

The views expressed here are solely the author's.

Clean energy takes center stage in the Biden administration, which targets net-zero emissions and a 100 percent clean energy economy by 2050.[1] This aligns with some global financial institutions' targets for net-zero financed emissions by 2050.[2]

Even before the pandemic, data centers were huge consumers of electricity, accounting for 1 percent of global consumption.[3] As remote work, cloud computing, and related activities can only be expected to increase post-pandemic, data centers should focus on clean sources of energy. Top publicly traded data center real estate investment trusts have committed to clean energy sourcing.[4] Reliable, high-quality power is critical to avoiding material business interruptions and losses to data centers and their tenants.[5] Thus, investing in dedicated clean energy resources is potentially a natural next step for data center REITs seeking reliable, high-quality power.

Community Transformation

Imagine transforming a subsistence-type agricultural area or a semi-abandoned industrial area to a hub of the digital economy — through the creation of solar-powered data center "estates." (See Exhibit A.) While some will wait for specific investment tax credits[6] to be extended before switching to more renewable energy sources, material investments through REITs in solar-powered data center estates could be a significant path to reducing the country's carbon footprint under existing rules.

A data center REIT (DCREIT) will identify the land suitable for both a dedicated solar farm and its data center buildings for the estate. A DCREIT will own land, photovoltaic modules (PV modules), mounts and racks, and exit wire — together, the solar energy estate assets — and the

[1] "The Biden Plan for a Clean Energy Revolution and Environmental Justice," Joebiden.com.

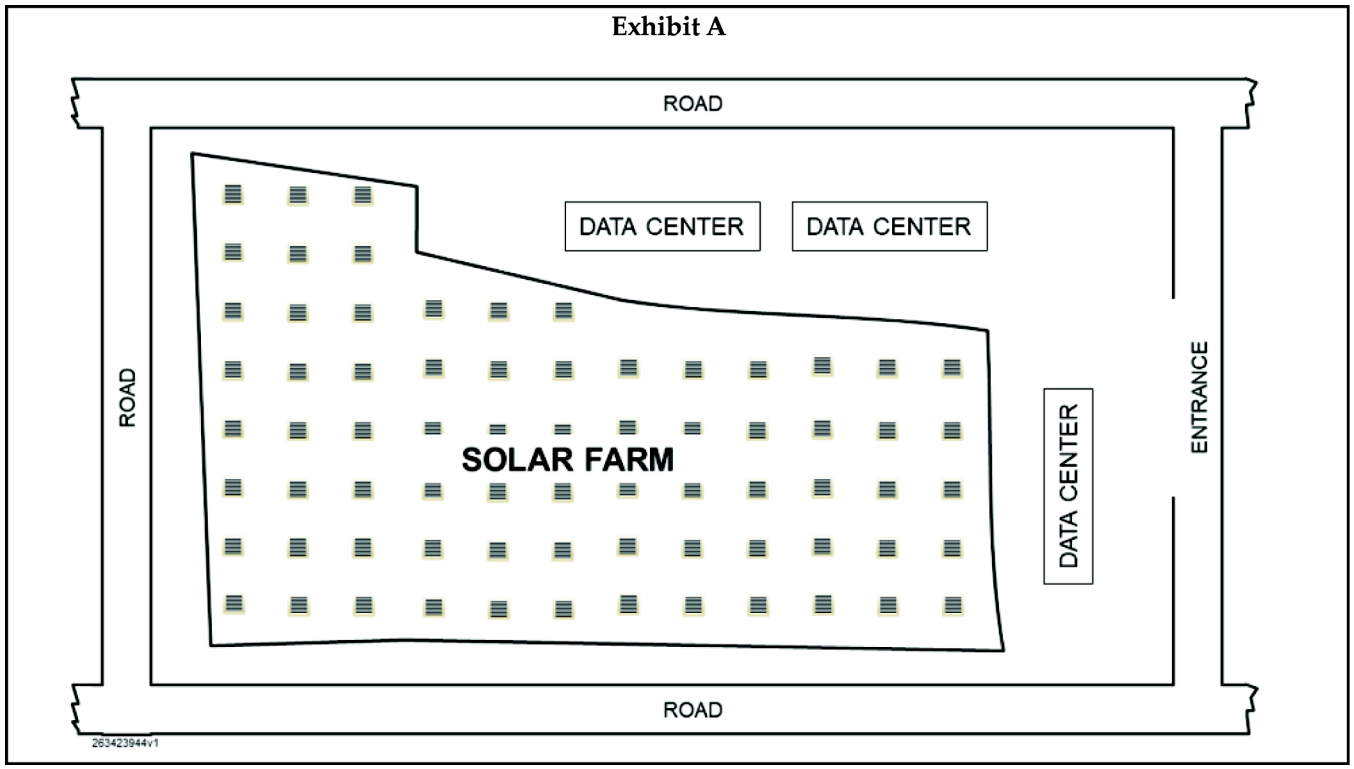
[2] "Counting the Carbs, Making Sense of Banks' Climate Targets," *The Economist*, Dec. 12, 2020, highlights targets of Morgan Stanley, HSBC, JPMorganChase and the Net-Zero Asset Owner Alliance.

[3] Yevgeniy Sverdlik, "Study: Data Centers Responsible for 1 Percent of All Electricity Consumed Worldwide," Data Center Knowledge (Feb. 27, 2020).

[4] *See, e.g.*, "Meeting the Renewable Energy Needs of Our Customers," Digital Realty; "Protecting, Connecting and Powering a Sustainable Digital World," Equinix; "QTS Consummates 100 Percent Renewable Energy Purchasing Agreement for Its Newly Acquired Groningen Data Center in the Netherlands," QTS Realty Trust; and "2020 Sustainability Report," CyrusOne.

[5] *See* John Collins, "Why Reliable Power Protection Is Critical for Data Center Operators," Data Center Knowledge (Apr. 14, 2016); and Kevin Normandeau, "Power Reliability Worries Spur Data Centers and Other Businesses to Pursue Energy Alternatives: Survey," Microgrid Knowledge (Mar. 26, 2018).

[6] While this article does not cover investment tax credits, the use of a REIT or taxable REIT subsidiary may be considered commercial alternatives to the extent those tax credits are available in the relevant context.



data center buildings. The PV modules and mounts will be set up on racks affixed to a concrete foundation on the land. Mounts and racks will generally be expected to remain in place. The PV modules that convert solar photons into electricity will technically be moveable. In this context, however, the expectation is that the solar farm (multiple PV modules on contiguous mounts and racks) will be customized to meet the data center estate's contemplated electric consumption needs, and no excess electric capacity is expected to be sold outside the estate. The exit wire will connect the PV modules to various equipment in the data center buildings, and it will be buried in the ground. Thus, the solar energy estate assets will be expected to remain indefinitely affixed to the ground. A DCREIT will not itself operate the buildings or the solar farm and will not otherwise provide services to its tenants. A DCREIT will have typical data center tenants occupying the estate buildings. The REIT rules in reg. section 1.856-10 (2016 regulations)[7] provide:

- the land is real property;
- the mounts are designed and constructed to be affixed indefinitely and serve a passive purpose; are permanently affixed to the ground through the concrete foundations; are not designed to be removed and are designed to remain in place indefinitely; and would require significant time and expense to move and thus are considered inherently permanent structures and, therefore, real property; and
- the PV modules, when taken together with the other solar energy estate assets, are expensive and time consuming to install or remove; are designed with the size and specifications needed to serve only the estate buildings; would be damaged if removed (although no damage would be done to the estate buildings if removed); would serve a utilitylike function to the estate; would serve the estate buildings in a passive function of containing, sheltering, and protecting the estate's building tenants' assets; would produce income from the use or occupancy of the estate buildings; would remain in place after the applicable building tenant vacates

[7] Reg. section 1.856-10(g), examples 8 and 9. Effective August 31, 2016.

and thus, altogether, are structural components and, therefore, real property.

The 2016 regulations are particularly helpful regarding dedicated solar energy assets. However they merely update the IRS's similar conclusion from the 1970s when it ruled that interests in mortgages, when secured by a total energy system *and* the building that the energy system served, qualified as real estate assets within the meaning of section 856(c)(6)(B).[8] The total energy system was described as "a self-contained facility for the production of all the electricity, steam or hot water, and refrigeration needs of associated commercial or industrial buildings, building complexes, shopping centers, apartment complexes and community developments."[9] The total energy system could be placed within the building; it could be attached to the building; or, as particularly relevant in the solar-powered data center estate context, it could be in a separate structure near the building.[10]

Regarding the data center building infrastructure itself, a DCREIT will own several buildings in the estate that it will lease to tenants. Because of the peculiar needs of data center tenants, who will be installing very costly computer-related equipment like servers, the applicable building's interiors and utilities will be adapted to the relevant market for a much higher level of functionality compared with a regular office or other type of building. A DCREIT will own an electrical distribution and redundancy system (electrical system), a telecommunication infrastructure system (tele-infra system), a central heating and air conditioning system (heat-aircon system), a fire suppression system (fire control system), a humidity control system, and an integrated security system. Each system will work together with the others in an integrated manner to provide overall utilitylike functions in the estate's buildings. The systems will be built into the walls and floors of the buildings and will not be removed when any tenant leaves. The space for computer-related equipment such as servers will be on raised flooring integrated into the overall building structures. Based on the 2016 regulations[11]:

- the buildings are inherently permanent structures and therefore real property;
- the heat-aircon system, fire control system, humidity control system, security system, building wiring, and flooring are structural components and, therefore, real property; and
- the electrical system and the tele-infra system are intended to provide stable, uninterrupted power and telecommunications service to the data center tenants; are embedded in the walls and floors and would be costly to remove; are not designed to be moved and are intended to stay in the applicable building; would not be damaged if removed and would not damage the applicable building significantly, other than the floors and walls, if removed; would serve a utilitylike function for the building; would serve the building's passive function of containing, sheltering, and protecting computing equipment like servers; would produce income as consideration for use of building space; and are considered to be structural components and, therefore, real property.

Even before the 2016 regulations, similar electrical and telecommunication infrastructure systems were considered in two private letter rulings, highlighting that data center infrastructure is indeed unique and that those systems are considered real property in the data-center REIT context.[12] One taxpayer's operations included campus-type settings[13] similar to the concept of a solar-powered data center estate.

Fund Sponsors and Investors

For private fund sponsors and investors interested in a sustainable digital economy, to the extent that the commercial objectives are not unduly hampered by the tax requirements, REITs can be an excellent vehicle for many investors. Noncorporate U.S. taxable investors benefit from a

[8] Rev. Rul. 73-425, 1973-2 C.B. 222.

[9] *See id.*

[10] *See id.*

[11] Reg. section 1.856-10(d)(2), (d)(3), and (g), Example 6.

[12] LTR 201423011 and LTR 201537020.

[13] *See* LTR 201537020.

20 percent deduction for their qualified REIT dividend income under section 199A — a statutory provision passed *after* the 2016 regulations and the two private letter rulings noted earlier — effectively reducing the highest marginal federal income tax rate from 37 percent to 29.6 percent on that qualified income. U.S. tax-exempt investors subject to tax on unrelated business taxable income, for as long as they do not incur acquisition indebtedness on their REIT shares and do not otherwise hold the REIT shares in an unrelated trade or business, generally[14] enjoy the benefit of the REIT acting as a type of UBTI "blocker" for any debt incurred by the REIT in connection with their income and gain from those REIT shares. In the context of the large amounts of capital required to establish solar farms and data centers, the ability to raise capital from U.S. tax-exempt investors is critical, and the investing vehicle's (the REIT's) ability to raise debt without adversely affecting those investors regarding UBTI generation is a very important fund-raising consideration. While equity REITs are generally not appealing to many non-U.S. investors because of the 1980 Foreign Investment in Real Property Tax Act or U.S. trade or business considerations[15] and U.S. withholding tax on dividends,[16] foreign sovereign investors that are protected under section 892 may find REIT investments attractive under the right conditions.[17]

The digital economy will only continue to grow. Recent natural disasters related to global warming make it imperative to cut global carbon emissions and to pivot toward renewable energy. There are many communities that are falling behind economically. Solar-powered data center estates can be one tool to help these communities catch up with the digital economy while contributing to the country's sustainability targets through renewable energy. The existing REIT rules can make the investment return proposition more attractive to multiple sources of capital. ■

[14] Section 512(b)(1). However, care must be taken in structuring any REIT to avoid pension-held REIT status and any excess inclusion income among other general REIT structuring items.

[15] Section 897.

[16] Sections 871(a)(1)(A) and 881(a).

[17] Care, however, must be taken to prevent the REIT from being a "controlled commercial entity" for any such foreign sovereign investor.