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# Corporate Sustainability Goals – Net Zero by 2030?

Many corporate entities have set aggressive renewable energy goals such as achieving net zero by 2030. Some have likened these steep goals to President Kennedy's declaration of putting a man on the moon. To meet these challenges, some entities have developed collaborations with utilities to develop useable commercial and industrial programs and economic structures targeted to function within the regulatory compact and with minimal impact to non-participating customers. These programs can be developed to serve larger commercial and industrial customers of a particular utility and can have a community approach to provide renewable energy resources to all customers in the utility's service area.

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#### Introduction

Most of us have heard about "net zero" and similar goals and programs. Both federal and local governments are setting increasingly aggressive goals and mandates in response to growing concerns about climate change.<sup>1</sup> The growing focus on renewable energy as part of this equation is shown in the Infrastructure Investment and Jobs Act signed into law on November 15, 2021, which provided for around \$25 billion in spending on energy technology demonstration projects.<sup>2</sup> For-profit and not-for-profit organizations have initiated programs to comply with these standards and to independently attempt to combat global climate change through carbon-neutrality goals, special initiatives, and creative collaborations. This article addresses how corporate sustainability goals can intersect with renewable energy programs offered by energy providers, in turn opening doors for additional renewable energy construction projects all across North America.

#### I. Corporate Sustainability Goals To Address Climate Change

Corporations globally have acknowledged climate change and are actively taking steps toward reducing and/or offsetting their carbon emissions as part of the worldwide effort to slow climate change's impacts. Some of the nation's largest businesses, like Walmart Inc. ("Walmart") (goals of 100% renewable energy by 2035 and zero emissions by 2040 without the use of offsets)<sup>3</sup> and other Fortune 500 companies,<sup>4</sup> are leading the way in the United States.

The charge is also being led by specially-organized non-profit organizations created solely to facilitate increased use and reliance on renewable energy, as well as more traditional non-profits whose organizational goals and constituents lend toward support for renewable energy. For example, organizations like the Southern Alliance for Clean Energy, Inc. ("SACE") and Vote Solar wholly devote their efforts to advancing clean energy and regularly advocate in favor of solar energy programs,<sup>5</sup> and organizations like the Theodore Roosevelt Conservation Partnership have

<sup>&</sup>lt;sup>1</sup> Matthew Kiefer & David Linhart, *Boston Requires Carbon Neutrality for Existing Buildings*, JDSUPRA (Nov. 10, 2021), https://www.jdsupra.com/legalnews/boston-requires-carbon-neutrality-for-1463018/?origin=CEG&utm\_source=CEG&utm\_medium=email&utm\_campaign=CustomEmailDigest&utm\_term=jds-article&utm\_content=

article-link, *FACT SHEET: President Biden Renews U.S> Leadership on World Stage at U.N. Climate Conference (COP26)*, THE WHITE HOUSE (Nov. 1, 2021), https://www.whitehouse.gov/briefing-room/statements-releases/2021/11/01/fact-sheet-president-biden-renews-u-s-leadership-on-world-stage-at-u-n-climate-conference-cop26/.

<sup>&</sup>lt;sup>2</sup> Infrastructure Investment and Jobs Act, Pub. L. No. 117-58 (2021), https://www.congress.gov/bill/117th-congress/house-bill/3684/text; *New Infrastructure Law to Provide Billions to Energy Technology Projects*, American Institute of Physics (Nov. 9, 2021), https://www.aip.org/fyi/2021/new-infrastructure-law-provide-billions-energy-technology-projects.

<sup>&</sup>lt;sup>3</sup> WALMART, INC., ENVIRONMENTAL, SOCIAL, AND GOVERNANCE FY 2021 SUMMARY (2021), https://corporate.walmart.com/esgreport/.

<sup>&</sup>lt;sup>4</sup> See GREENBIZ GROUP & BLACK & VEATCH, CORPORATE SUSTAINABILITY GOAL SETTING AND MEASUREMENT (2021), https://www.bv.com/resources/2021-corporate-sustainability-goal-setting-and-measurement-report.

<sup>&</sup>lt;sup>5</sup> See, e.g., Prehearing Stmt. of Southern Alliance for Clean Energy, In re: Petition by Duke Energy Florida, LLC for a limited proceeding to approve Clean Energy Connection Program and Tariff and Stipulation, No. 20200176-EI (Fla. P.S.C. 2020); Vote Solar's Prehearing Stmt., In re: Petition by Duke Energy Florida, LLC for a limited proceeding to approve Clean Energy Connection Program and Tariff and Stipulation, No. 20200176-EI (Fla. P.S.C. 2020).

also recognized the impacts of climate change and worked to guide advancement of renewable energy production to benefit all stakeholders.<sup>6</sup>

Finally, utilities have listened to their customers—schools, small businesses, industries, hospitals, retailers, military institutions, and private citizens, alike—to develop programs meeting customer needs and demands for clean energy solutions.<sup>7</sup> Several of these programs are already in action across the country, displaying the ability of utilities to work with industrial, commercial, and residential customers to implement creative solutions to meet clean energy goals.<sup>8</sup>

# II. Corporate Case Study - Walmart Inc.'s Renewable Energy Goals<sup>9</sup>

Walmart has long had aggressive and significant company-wide renewable energy goals, and on September 21, 2020, the company announced new targets, including: (1) to be supplied 100 percent by renewable energy by 2035 and (2) zero carbon emissions in our operations, including our transportation fleet vehicles, without the use of offsets, by 2040. Walmart also set a goal to transition to low-impact refrigerants for cooling and electric equipment for heating by 2040.<sup>10</sup>

#### A. Walmart's North American Projects

To date, Walmart has contracted for or currently takes electricity from one or more renewable resources in at least 30 states, including Florida and Puerto Rico. The following is a list of some of its North American Renewable Projects:

#### \*United States\*

#### <u>Solar</u>

In the U.S., Walmart has over 550 solar projects across the U.S. with approximately 414 of those project being on-site solar installments on rooftops, parking canopies, and one ground mount solar array with pollination. Recent examples of both on-site and off-site projects include:

<sup>&</sup>lt;sup>6</sup> Ed Arnett, *How the Push for Renewable Energy Development Affects Hunting and Fishing*, THEODORE ROOSEVELT CONSERVATION PARTNERSHIP (Oct. 15, 2021), https://www.trcp.org/2021/10/15/push-renewable-energydevelopment-affects-hunting-fishing/; TRCP Staff, *Sportsmen's Groups Throw Support Behind Renewable Energy Legislation*, THEODORE ROOSEVELT CONSERVATION PARTNERSHIP (Jul. 25, 2019), https://www.trcp.org/2019/07/25/sportsmens-groups-throw-support-behind-renewable-energy-legislation/.

<sup>&</sup>lt;sup>7</sup> *Duke Energy named one of North America's top sustainable companies for 16th straight year*, DUKE ENERGY (Nov. 15, 2021), https://news.duke-energy.com/releases/duke-energy-named-one-of-north-americas-top-sustainable-companies-for-16th-straight-year.

<sup>&</sup>lt;sup>8</sup> See, e.g., In re: Petition for limited proceeding to approve 2021 settlement agreement, including general base rate increases, by Duke Energy Florida, LLC, Dkt. No. 20210016-EI, Order No. PSC-2021-0202-AS-EI, 2021 WL 2371660 (Fla. P.S.C. 2021); In re: Petition for approval of FPL SolarTogether program and tariff, by Florida Power & Light Company, Dkt. No. 20190061-EI, Order No. PSC-2020-0084-S-EI, 2020 WL 1431943 (Fla. P.S.C. 2020).

<sup>&</sup>lt;sup>9</sup> See, generally, October 2, 2020, Direct Testimony of Steve W. Chriss, Director, Walmart Energy Services, Florida Public Service Commission Docket No. 20200176-EI for Section II of this article.

<sup>&</sup>lt;sup>10</sup> Walmart Sets Goal to Become a Regenerative Company, WALMART (Sept. 21, 2020), https://corporate.walmart.com/newsroom/2020/09/21/walmart-sets-goal-to-become-a-regenerative-company.

- 1) Project to install solar panels on 60 Walmart facilities in California providing up to 70 million kWh;
- 2) Total of 40 MW of capacity from various solar arrays across five states including Arizona, California, Illinois, New Jersey, and Louisiana;
- 3) Thirteen additional solar installations in South Carolina; and
- 4) Thirty-six 1 MW community solar gardens serving Walmart facilities and other customers in Minnesota.

## Wind

Walmart also employs wind technology to meet its renewable energy goals. Although most wind facilities are located offsite, Walmart has one wind installation at a distribution center in California. Some of the offsite wind projects that supplies power to Walmart, along with other customers, include:

- 1) 205 MW Bright Stalk Wind Farm and the 200 MW Harvest Ridge Wind Farm in Illinois;
- 2) 200 MW Headwaters II Wind Farm in Indiana; and
- 3) 303 MW Diamond Spring Wind Farm in Oklahoma.

# Other

Fuel cell technology runs on clean hydrogen fuel and is being employed by Walmart in its distribution centers through GenDrive fuel cells, which are used to refuel lift trucks in several warehouses including its Washington Courthouse facility in Ohio. Walmart is looking to increase its GenDrive units from approximately 500 to over 1,700 at six more Walmart locations in North America.

# \*Mexico\*

# <u>Solar</u>

Walmart de México has been leading renewable technology in this region through highefficiency stores that use solar power, like the 1,056 solar panels that were installed on the roof of Bodega Aurrera Aguascalientes in 2009. Recently, Walmart has installed eight new solar systems at its stores across Mexico with a total installed capacity of 4 MW.

# Wind

In 2009, construction of Mexico's first wind energy park for a retailer was completed in Oaxaca. The park began supplying clean energy to 348 Walmart de México units in April 2010. The project will reduce approximately 137,240 tons of CO2 emissions. Now, 27 percent of the energy Walmart uses in Mexico is generated by renewable resources based on Mexico's energy generation mix.\* All 27 of the turbines used in the wind farm were manufactured in the United States by California-based Clipper Windpower and exported to Mexico to support Walmart's demand for renewable energy.

#### \*Canada\*

In 2010, Walmart Canada announced plans to install a rooftop solar system and wind turbine at two separate Walmart locations in Ontario with a combined investment of approximately \$2 million.

## Solar

Rooftop solar power-generating systems generate approximately 450,000 kwh of energy per year, enough to supply 39 average size Canadian households. The solar system also reduces greenhouse gas emissions (GHG) by an estimated 80 metric tons per year. Although Walmart will finance and own the solar energy system, power generated will be returned to the electrical grid under Ontario's feed-in tariff program for renewable energy. Pilot projects such as these help Walmart assess the effectiveness and potential benefits of these types of solar systems for future deployment at other Walmart facilities.

#### Wind

In 2010, Walmart also announced its plans to install a 20-kilowatt wind turbine adjacent to two of its Ontario stores that generate up to 50,000 kwh of electricity per year per unit, which is enough to power four average size Canadian households. The wind turbine is designed for low wind speed areas, where wind power has not been previously practical.

#### Other

Walmart is one of Canada's largest purchasers of renewable energy through Bullfrog Power. In Canada, Walmart is testing many energy-efficient operations and renewable energy technologies in its stores and distribution centers, including geothermal technology at its Burlington, Ontario store.

# B. Ways Walmart Meets Its Renewable Energy Goals

Walmart's desire for renewable energy resources must be balanced against its business needs. As a general rule, Walmart does not enter into premium structures or programs that only result in additional costs to its facilities. Rather, Walmart seeks renewable energy resources that deliver industry-leading cost, including renewable and project specific attributes such as renewable energy credits ("RECs"), within structures where the value proposition allows the customer to receive any potential benefits brought about by taking on the risk of being served by that resource instead of, or in addition to, the otherwise applicable resource portfolio. Additionally, Walmart does not enter into programs with contract terms in excess of 15 years.

To meet its renewable energy goals, Walmart utilizes three primary channels to secure renewable energy resources:

(1) <u>Contracting for off-site resources</u>: These products are typically structured to replace other energy, both physically and on the bill. This mechanism allows Walmart to leverage its scale to drive the best project economics while simultaneously minimizing transaction time and costs. To date, Walmart has contracted for these resources in deregulated markets through Texas Retail Energy, LLC, a competitive electric supplier wholly owned by

Walmart that serves as its electric supplier in most deregulated retail markets, to directly serve its load. Walmart has also entered into "Virtual Power 1 Purchase Agreements" in deregulated wholesale markets, which do not directly serve its load but which allows Walmart to bring new large scale renewable resources to the market.

(2) <u>Contracting for on-site resources</u>: Walmart contracts for on-site, behind the meter resources through power purchase agreements ("PPAs") and leases that allow performance guarantees. These resources replace grid energy and are priced with the expectation that the operating costs for the site are reduced.

(3) <u>Utility collaborations</u>: Walmart works with utilities to develop useable commercial and industrial programs and economic structures targeted to function within the confines of the regulatory compact and with minimal impact to non-participating customers. When this option is pursued, Walmart works to ensure that the programs it assists to develop can be used by the broader group of large commercial and industrial customers, not merely Walmart. It is this option that we will explore further below.

# **III.** Meeting Sustainability Goals Via Utility Collaborations

Walmart is unique in the large commercial space because it has significant in-house rate and regulatory expertise that it is willing to leverage to create opportunities to move the entire industry forward. The largest of these collaborations that have been executed to date include the development of and participation in Florida Power & Light Company's ("FPL") SolarTogether Program ("SolarTogether"), <sup>11</sup> Georgia Power Company's Renewable Energy Development Initiative program, <sup>12</sup> and Alabama Power Company's 72 MW solar farm 1 in Alabama.<sup>13</sup> While Walmart assisted in developing these opportunities, the opportunities are open to other interested large customers, not just Walmart.

# A. Case Study - Duke Energy Florida's Clean Energy Connection

Given the vast amount of potential for solar resources in Florida, it is not surprising that Duke Energy Florida ("Duke Energy") would also develop its own community solar program -- Clean Energy Connection ("CEC"). Duke Energy's CEC Program is a voluntary community solar program that allows participating customers to pay a subscription fee in exchange for receiving bill credits related to the solar generation produced by the CEC Program solar facilities. Duke Energy planned to build ten projects totaling 750 MW of solar generation as part of the CEC Program, which will be placed in-service between 2022 and 2024. Duke Energy has allocated the capacity of the CEC Program solar facilities among commercial, residential and local government

<sup>&</sup>lt;sup>11</sup> See In re: Petition for approval of FPL SolarTogether program and tariff, by Florida Power & Light Company, Dkt. No. 20190061-EI, Order No. PSC-2020-0084-S-EI, 2020 WL 1431943 (Fla. P.S.C. 2020).

<sup>&</sup>lt;sup>12</sup> Joel Makower, *How Google and Walmart work with utilities to procure clean power*, GREENBIZ (Apr. 9, 2018), https://www.greenbiz.com/article/how-google-and-walmart-work-utilities-procure-clean-power

<sup>&</sup>lt;sup>13</sup>Michael Sznajderman, *Chambers County solar project now serving Walmart*, ALABAMA NEWSCENTER (Jan. 2, 2018), https://www.alabamanewscenter.com/2018/01/02/chambers-county-solar-project-now-serving-alabama-power-customers/

customer groups with approximately 27.7% of the residential allocation carved out for low-income customers.

On July 1, 2020, Duke Energy filed a Petition for Approval of a Stipulation entered into by several parties regarding the CEC Program and associated tariffs.<sup>14</sup> This administrative proceeding was brought pursuant to Sections 366.076(1) and 366.06(3), Florida Statutes ("F.S.") and Rules 28-106.201, 25-9.004 and 25-9.033, Florida Administrative Code ("F.A.C.").<sup>15</sup> The Stipulation and related tariffs contained a series of compromises from signatories regarding the structure, funding, construction, and operation of the CEC Program. The signatories to the Stipulation were Duke Energy, Vote Solar, SACE and Walmart.

After discovery was closed, the Florida Public Service Commission conducted a full evidentiary hearing to learn about the proposed CEC Program. Many witnesses testified, including Walmart's Director of Energy Services, Steve Chriss. Mr. Chriss explained to the Commission reasons why Walmart supported the CEC Program:

[T]he Duke [Energy] program, and then [Florida Power and Light] SolarTogether before it, are still fairly unique nationally in terms of [how the] programs are structured . . . . The Florida programs are unique in that they provide . . . an opportunity for low-income customers to access renewables. The other pieces of it that are -- that I think really help to drive the public interest determination are that it's a program that really is responsive and ... flexible to meet the needs of customers as they work through times like the pandemic. Most programs require some sort of long-term commitment, usually at least 10 years. This program . . . has a month-to-month opportunity for it so that if a customer does have financial difficulties, or has trouble, they can drop . . . So there is a lot of really cool aspects of the Duke [Energy] program . . . that show leadership both from the utility as well as the Commission in approving the program. [I]f this program is approved, the Florida Commission will have approved 2,250 megawatts worth of customer facing programming, which is far greater than any other state in the country at this point.<sup>16</sup>

Duke Energy's witnesses testified regarding how the CEC Program would benefit all of its customers by providing renewable energy that would reduce the Company's annual average use of natural gas and coal, thereby reducing Duke Energy's reliance on fossil fuels. Further, the new solar projects would reduce carbon emissions as a result of the lower overall use of fossil fuels.<sup>17</sup>

After the full evidentiary hearing, the CEC Program was approved by the Florida Public Service Commission. <sup>18</sup> In doing so, the Commission found that the Stipulation established "fair, just and reasonable rates without undue preference" and "is in the public interest."<sup>19</sup> Specifically,

<sup>&</sup>lt;sup>14</sup> Florida Public Service Commission Docket No. 20200176-EI – *Petition for a limited proceeding to approve clean energy connection program and tariff and stipulation, by Duke Energy Florida, LLC.* 

<sup>&</sup>lt;sup>15</sup> Summary taken in part from Dec. 20, 2020 Florida Public Service Commission Staff Memorandum, Dkt. No. 20200176-EI.

<sup>&</sup>lt;sup>16</sup> Dkt. No. 20200176-EI, Nov. 18, 2020 Hearing Tr. at 295, line 16 through 299, line 3.

<sup>&</sup>lt;sup>17</sup> Id. at 316-317.

<sup>&</sup>lt;sup>18</sup> Florida Public Service Commission Final Order No. PSC-2021-0059-S-EI (Jan. 26, 2021).

<sup>&</sup>lt;sup>19</sup> Id.

the Commission found that the CEC Program advanced the renewable energy policies outlined in Florida Statute Section 366.92.<sup>20</sup> With this approval, construction of the CEC Program's new solar plants began.

# B. Duke Energy's Clean Energy Connection Program Solar Construction Projects

The Fort Green Power Plant will be built on approximately 500 acres, at a former phosphate mine, in Hardee County, Florida. The 74.9-megawatt (MW) plant will consist of approximately 265,000 bifacial solar panels, utilizing a fixed-tilt racking system that will produce enough carbon-free energy to effectively power more than 20,000 average-sized homes at peak production. The bifacial solar panels will be supplied by Hanwha.

The project was acquired by Duke Energy in 2020 from third-party developer, Beaufort Rosemary LLC. Duke Energy then developed and obtained the remaining project permits, including the Environmental Resource Permit and Hardee County Final Site Plan approval. Duke Energy contracted with Moss & Associates, based out of Florida, as the Engineering, Procurement and Construction ("EPC") Contractor for the project. Construction on the site began in July 2021 and is expected to be completed by July 2022. The site is estimated to average 150 workers per day during construction, with an expected peak of 300 workers per day for a two-month period. Once the project is placed in service, Duke Energy will be responsible for the Operations & Maintenance ("O&M") of the array.

The Bay Trail Solar Power Plant will be built on 500 acres in Citrus County, Florida. It is the site of a future mining location. Once operational (expected spring 2022), the 74.9-MW facility will consist of approximately 197,000 tracking bifacial solar panels. Its innovative double-sided panel design is highly efficient and tracks the movement of the sun. The plant will be capable of effectively producing enough electricity to power approximately 23,000 average-sized homes at peak production. The bifacial solar panels will be supplied by Hanwha.

The project was acquired by Duke Energy in 2021 from third-party developer, Pattern Renewables Development, LLC. Duke Energy then continued to develop the project and obtained the remaining project permits, including the Citrus County Site Plan approval, Gopher Tortoise Relocation permit, and the County Tree mitigation permit. Duke Energy contracted with Wanzek Construction Inc., based out of Fargo, North Dakota, as the EPC Contractor for the project. Construction on the site began in May 2021 and is expected to be completed by March 2022. The site is estimated to average 150 workers per day during construction, with an expected peak of 300 workers per day for a two-month period. Once the project is placed in service, Duke Energy will be responsible for O&M of the array.

For the remaining CEC units, Duke Energy has a robust pipeline of projects at various stages of development. Duke Energy intends to complete the remaining projects through a combination of greenfield development and third-party project acquisitions. Duke Energy has extensive experience in evaluating greenfield sites and projects under development by third party developers. Duke Energy considers several factors during project evaluation such as cost-effective

interconnection to the grid, environmental impacts, constructability of the site, development status and schedule, overall costs, quality/type of materials (such as panel, inverter and racking, manufacturers), project location, zoning entitlements, experience and competencies of the developer, and construction schedule. Duke Energy has developed robust relationships with key equipment suppliers (modules, inverters, transformers, SCADA), with EPC contractors, and with consultants and law firms utilized in the development phase.

# C. Duke Energy's Other Alternative Fuel Projects

In addition to its CEC Program, Duke Energy received permission from the Florida Public Service Commission to implement a "Vision Florida" pilot program.

The program [could] consist of capital and Operating & Maintenance ("O&M") investments associated with, but not limited to: up to four Emergency Relief Microgrid projects; a floating solar pilot project at the Hines generating station; an investment in some form of hydrogen power; and solar plus storage projects that are intended to delay or avoid future transmission or distribution investments . . ..<sup>21</sup>

While Duke Energy is still evaluating which projects to implement under this Vision Florida pilot program, it is clear that testing new and innovative technologies—like those that will be presented as part of the pilot—is critical to modernize the electric grid.

# IV. Construction-Related Legal Issues Stemming From Sustainability Projects

The construction projects stemming from programs developed to meet sustainability goals such as projects developed out of Clean Energy Connection and Vision Florida, bring with them a number of legal issues. Of particular significance are land use/zoning questions, procurement/contracting issues related to specialized engineering, design, construction, and supply needs, and potential dispute resolution resulting from project issues with which we are all familiar, such as delays, defects, and injuries. Renewable energy projects also carry significant ongoing O&M needs that should be addressed through appropriate procurement/contracting practices.

# A. Zoning and Land Use

Perhaps the most hotly contested and litigated issue surrounding renewable energy construction projects is the threshold question of whether or not parties can build a renewable energy facility in a given location. These disputes typically begin when a landowner requests a zoning variance or special use permit from a local planning board to build a new renewable energy facility, and planning board decisions are often appealed to court.<sup>22</sup> Planning board hearings are typically quasi-judicial, so it behooves businesses or individuals seeking to build a renewable

<sup>&</sup>lt;sup>21</sup> In re: Petition for limited proceeding to approve 2021 settlement agreement, including general base rate increases, by Duke Energy Florida, LLC, Dkt. No. 20210016-EI, Order No. PSC-2021-0202-AS-EI, 2021 WL 2371660, at \*23 (Fla. P.S.C. 2021).

<sup>&</sup>lt;sup>22</sup> See, e.g., Innovative 55, LLC v. Robeson Cnty., 253 N.C. App. 714, 801 S.E.2d 671 (2017) (appeal of denial of application for conditional use permit to construct a solar farm).

energy facility, or to oppose construciton of a facility, to seek legal representation prior to a hearing.<sup>23</sup>

Standards to obtain appropriate permits vary by state, county, and in some cases, municipality, but the main themes of the disuptes typcially involve whether the proposed renewable energy project meets specific statutory and regulatory criteria and concerns from the community about broad impacts from the potential facility.<sup>24</sup> Typical community concerns deal with property value impacts, environmental/wildlife impacts, and concerns with the aesthetic of the facility in the community.<sup>25</sup> However, "generalized and speculative fears" are not enough to defeat a requested special use permit, and both proponents and opponents of a facility should present their positions through expert testimony.<sup>26</sup>

#### B. EPC Issues

Construction of a renewable energy facility itself presents a number of issues, both during procurement and construction. The breadth of these issues is so vast that some renewable energy companies have established their own engineering, procurement, and construction ("EPC") departments, including in-house legal teams. Particular attention must be paid to engineering and design requirements, which, if not met, can result in delayed commissioning of the facility or even total shutdown. Some of these special requirements are technical and deal with the facility's ability to safely generate and store power, while others relate back to general requirements and zoning (e.g. special attention to landscape design may be needed to meet bufferyard width, height, and folaige species requirements). Project design may also be required—or prudent project owners may desire—to take into account impacts of the facility on the surrounding landscape and local wildlife.<sup>27</sup> Taking such considerations into account may also assist project owners in mitigating community opposition to construction of a facility.

Additionally, the construction project presents legal issues in the form of potential disputes regarding project delays, payments, construction defects, and injuries during and after the project to both workers and trespassers. These are all commonly litigated issues in construction, but in the context of a renewable energy project, different issues may be more prominent. For example, due to the specialized nature of the materials required to construct a solar facility, a solar energy project may be more susceptible to supply chain impacts, causing disuptes over price escalations or supply chain delays. Some of these disputes may be mitigated through effective contract drafting during the procurement phase. Further, disputes on renewable energy facility projects may draw additional attention or scrutiny because of the high-profile nature of renewable energy, today.

<sup>&</sup>lt;sup>23</sup> See id.

<sup>&</sup>lt;sup>24</sup> See id.; State ex rel. Numrich v. City of Mequon Bd. of Zoning Appeals, 242 Wis.2d 677, 626 N.W.2d 366 (Wis. Ct. App. 2001).

<sup>&</sup>lt;sup>25</sup> Id.

<sup>&</sup>lt;sup>26</sup> Innovative 55, LLC, 253 N.C. App. at 724, 801 S.E.2d at 678-79.

<sup>&</sup>lt;sup>27</sup> Ed Arnett, *How the Push for Renewable Energy Development Affects Hunting and Fishing*, THEODORE ROOSEVELT CONSERVATION PARTNERSHIP (Oct. 15, 2021), https://www.trcp.org/2021/10/15/push-renewable-energydevelopment-affects-hunting-fishing/; TRCP Staff, *Sportsmen's Groups Throw Support Behind Renewable Energy Legislation*, THEODORE ROOSEVELT CONSERVATION PARTNERSHIP (Jul. 25, 2019), https://www.trcp.org/2019/07/25/sportsmens-groups-throw-support-behind-renewable-energy-legislation/.

Additional precautions against this scrutiny may be taken during procurement to minimize the public nature of disputes by providing for confidentiality and private arbitration, where possible.

#### V. Conclusion

Confronting climate change involves multi-national companies, non-profit organizations, utilities, government and regulatory bodies, legal counsel, and a variety of players within the construction industry. This paper illustrates an example of what can be accomplished when all of these groups collaborate to implement a creative program to facilitate the construction of large solar farms in Florida as part of a community solar program. In addition, this paper scratches the surface of non-solar alternative fuel solutions in which both Walmart and Duke Energy have researched and invested, and which may be developed alongside solar assets to further reduce carbon emissions in the future.