

The Florida Senate
BILL ANALYSIS AND FISCAL IMPACT STATEMENT

(This document is based on the provisions contained in the legislation as of the latest date listed below.)

Prepared By: The Professional Staff of the Committee on Fiscal Policy

BILL: CS/CS/SB 1624

INTRODUCER: Appropriations Committee on Agriculture, Environment, and General Government;
Regulated Industries Committee; and Senator Collins

SUBJECT: Energy Resources

DATE: February 26, 2024

REVISED: _____

ANALYST	STAFF DIRECTOR	REFERENCE	ACTION
1. <u>Schrader</u>	<u>Imhof</u>	<u>RI</u>	<u>Fav/CS</u>
2. <u>Schrader/Davis</u>	<u>Betta</u>	<u>AEG</u>	<u>Fav/CS</u>
3. <u>Schrader</u>	<u>Yeatman</u>	<u>FP</u>	<u>Favorable</u>

Please see Section IX. for Additional Information:

COMMITTEE SUBSTITUTE - Substantial Changes

I. Summary:

CS/CS/SB 1624 amends several sections of Florida law and creates new statutory provisions relating to energy resources. In summary, the bill:

- Creates limitations on local government regulation of natural gas resiliency and reliability infrastructure.
- Revises energy guidelines for public businesses, deleting requirements relating to the Florida Climate-Friendly Preferred Products List, and state vehicle fuel efficiency.
- Requires the Department of Management Services (DMS) to develop the Florida Humane Preferred Products List to identify certain products that appear to be largely made free from forced labor.
- Adds “development districts” to a provision that prohibits a municipality, county, special district, or other political subdivision of the state from enacting or enforcing a resolution, ordinance, rule, code, or policy or taking any action that restricts or prohibits or has the effect of restricting or prohibiting the types or fuel sources of energy production which may be used, delivered, converted, or supplied by utilities, gas districts, natural gas transmission companies, and certain liquefied petroleum gas dealers, dispensers, and cylinder exchange operators.
- Adds “development districts” to a provision that prohibits a municipality, county, special district, or other political subdivision of the state from restricting or prohibiting the use of an appliance using the fuels or energy types supplied by the entities above.

- Requires all electric cooperatives and municipal electric utilities to enter into and maintain certain mutual aid agreements and submit an annual attestation to qualify to receive state financial assistance for disaster recovery.
- Permits the Public Service Commission (PSC) to approve upon petition by a public utility, certain electric vehicle (EV) charging programs if the PSC determines that the public utility's general body of ratepayers, as a whole, will not pay to support recovery of its electric vehicle charging investment by the end of the useful life of the assets dedicated to the electric vehicle charging service.
- Requires the PSC to conduct an annual proceeding to determine prudently incurred natural gas facilities relocation costs for cost recovery by natural gas public utilities through a charge separate from the utility's base rates.
- Substantially revises legislative intent as it pertains to part II, of ch. 377, F.S., which provides energy resource planning and development policies for Florida. The revisions also provide updated energy policy goals and state policies as they relate to energy resource planning and development.
- Eliminates a requirement that the Department of Agriculture and Consumer Services (DACS), when analyzing the energy data collected and preparing long-range forecasts of energy supply and demand, forecasts contain plans for the development of renewable energy resources and reduction in dependence on depletable energy resources, particularly oil and natural gas. Instead, such forecasts must contain an analysis of the extent to which domestic energy resources, including renewable energy sources, are being utilized in the state. It also revises certain related considerations and assessments.
- Revises the duties of the DACS as it relates to the promotion of the development and use of renewable energy sources. The section deletes a requirement that the DACS establish goals and strategies for increasing the use of renewable energy in the state.
- Repeals the Florida Energy and Climate Protection Act (Renewable Energy and Energy-Efficient Technologies Grants Program), Florida Green Government Grants Act, Energy Economic Zone Pilot Program, and Qualified Energy Conservation Bonds provisions.
- Provides procedures for handling existing applications and contracts relating to the above repealed programs.
- Prohibits the construction, operation, or expansion of offshore wind energy facilities and wind turbines located on real property within one mile of the state's coastline or on waters of the state.
- Requires the Department of Environmental Protection (DEP) to review federal wind energy lease applications and signify DEP's approval or objection.
- Increases the minimum length of an intrastate natural gas pipeline that requires certification under the Natural Gas Transmission Pipeline Siting Act from 15 miles to 100 miles.
- Prohibits homeowners associations from disallowing certain types or fuel sources of energy production and appliances that use such fuels in their governing documents.
- Directs the PSC to conduct an assessment, in consultation with the Department of Emergency Management (DEM), of the security and resiliency of the state's electric grid and natural gas facilities against both physical threats and cyber threats. The provision also requires the PSC to submit a report to the Legislature.
- Directs the PSC to study and evaluate, in partnership with public utilities and in consultation with the DEM, the technical and economic feasibility of using advanced nuclear power technologies, including small modular reactors (SMRs), to meet the state's electrical power

needs, and research means to encourage and foster the installation and use of such technologies at military installations in the state. The provision also requires the PSC to submit a report to the Governor, President of the Senate, and Speaker of the House of Representatives.

- Directs the Florida Department of Transportation (FDOT), in consultation with the Office of Energy within the DACS, to study and evaluate the potential development of hydrogen fueling infrastructure, including fueling stations, to support hydrogen-powered vehicles that use the state highway system. The provision also requires the FDOT to submit a report to the Governor, President of the Senate, and Speaker of the House of Representatives.
- Makes conforming changes.

The bill may have a significant negative fiscal impact on state expenditures. See Section V., Fiscal Impact Statement.

The bill has an effective date of July 1, 2024.

II. Present Situation:

Florida Energy Consumption and Generation

Florida is the third-largest energy consuming state; however, it uses less energy per capita than all but six other states. Florida is also the second-largest producer of electricity in the nation (behind Texas). Natural gas is, by far, the largest energy source in Florida, and has been since 2003 when it surpassed coal.¹ As of 2022, the energy sources, as a percentage of all energy sources in Florida, are as follows:

- Natural gas: 69.55 percent
- Nuclear: 11.16
- Coal: 6.40
- Renewables: 5.76
- Other: 5.04
- Firm Inter-Region Interchange: 1.91
- Distillate (i.e. fuel oil/diesel fuel): 0.16
- Residual: 0.01
- Non-utility generators: less than 0.01²

Renewable Energy

Section 366.91, F.S., establishes a number of renewable policies for the state. The purpose of these policies, as established in statute, states that it is in the public interest to promote the development of renewable energy resources in this state.³ Further, the statute is intended to

¹ United States Energy Information Administration, *Florida Profile Analysis*, Feb. 15, 2024, <https://www.eia.gov/state/analysis.php?sid=FL#:~:text=Solar%20energy%20and%20biomass%20provide,generation%20> (last visited Feb. 20, 2024).

² Florida Reliability Coordinating Council, *2023 Regional Load & Resource Plan FRCC-MS-PL-502, Version: 1*, s-18, Jun. 6, 2023 (available at: https://www.floridapsc.com/pscfiles/website-files/PDF/Utilities/Electricgas/TenYearSitePlans//2023/FRCC_RLRP.pdf).

³ Section 366.91(1), F.S.

encourage fuel diversification to meet Florida’s growing dependency on natural gas for electric production, minimize the volatility of fuel costs, encourages investment within the state, improve environmental conditions, and make Florida a leader in new and innovative technologies.⁴

The section defines “renewable energy” to mean:

[E]lectrical energy produced from a method that uses one or more of the following fuels or energy sources: hydrogen produced or resulting from sources other than fossil fuels, biomass, solar energy, geothermal energy, wind energy, ocean energy, and hydroelectric power. The term includes the alternative energy resource, waste heat, from sulfuric acid manufacturing operations and electrical energy produced using pipeline-quality synthetic gas produced from waste petroleum coke with carbon capture and sequestration.⁵

The section defines “biogas” as “a mixture of gases produced by the biological decomposition of organic materials which is largely comprised of carbon dioxide, hydrocarbons, and methane gas,”⁶ and “biomass” as “a power source that is comprised of, but not limited to, combustible residues or gases from forest products manufacturing, waste, byproducts, or products from agricultural and orchard crops, waste or coproducts from livestock and poultry operations, waste or byproducts from food processing, urban wood waste, municipal solid waste, municipal liquid waste treatment operations, and landfill gas.”⁷

Biofuels

Unlike other renewable energy sources, biomass can be converted directly into a liquid fuel. These fuels, called “biofuels” can be used for transportation fuel and other energy uses. The most common types of biofuels currently in use are ethanol and biodiesel.⁸

Ethanol is made from various plant material and is an alcohol blending agent mixed with traditional gasoline to reduce emissions. The most common type is E10 (10 percent ethanol and 90 percent gasoline) and it is approved for use in most conventional gasoline powered engines. Some vehicles, called flexible fuel vehicles, are designed to run on E15 (15 percent ethanol and 85 percent gasoline). Approximately 97 percent of gasoline sold in the United States has some amount of ethanol in it. The most common method of producing ethanol is through fermentation, where microorganisms metabolize plant sugars to produce ethanol.⁹

Biodiesel differs from ethanol in that it is meant as a cleaner-burning replacement for conventional (i.e. petroleum-based) diesel fuel. It is derived, generally, from new and used

⁴ *Id.*

⁵ Section 366.91(2)(e), F.S.

⁶ Section 366.91(2)(a), F.S.

⁷ Section 366.91(2)(b), F.S.

⁸ United States Department of Energy, *Biofuel Basics*, <https://www.energy.gov/eere/bioenergy/biofuel-basics#:~:text=The%20two%20most%20common%20types,first%20generation%20of%20biofuel%20technology> (last visited Feb. 1, 2024).

⁹ *Id.*

vegetable oils and animal fats. Biodiesel is produced by combining alcohol with fats.¹⁰ Biodiesel is generally blended with petroleum-based diesel for consumption as a vehicle fuel.¹¹

Renewable diesel fuel is a growing industry. The fuel, chemically similar to petroleum-based diesel fuel, can be used as a “drop-in” replacement for petroleum-based diesel fuel and can be seamlessly blended, transported, and even co-processed with petroleum-based diesel.¹² The production method for renewable diesel fuel is more complex than biodiesel and most is produced by hydrogenation of triglycerides, a similar process to that used for desulfurization of petroleum diesel. Other methods can also be used for renewable diesel production, including gasification and pyrolysis.¹³

Other biofuels, including renewable heating oil, renewable jet fuel (sustainable aviation fuel, alternative jet fuel, biojet), renewable naphtha, and renewable gasoline are also currently in various stages of development and commercial implementation.¹⁴

Natural Gas and Renewable Natural Gas

Natural gas is a fossil energy source which forms beneath the earth’s surface. Natural gas contains many different compounds, the largest of which is methane.¹⁵ Conventional natural gas is primarily extracted from subsurface porous rock reservoirs via gas and oil well drilling and hydraulic fracturing, commonly referred to as “fracking.” The term renewable natural gas (RNG) refers to biogas that has been upgraded to use in place of fossil fuel natural gas (i.e. conventional natural gas).¹⁶

Section 366.91, F.S., identifies sources for producing RNG as a potential source of renewable energy.¹⁷ The section specifically defines renewable natural gas as anaerobically generated biogas, landfill gas, or wastewater treatment gas refined to a methane content of 90 percent or greater. Under the definition, such gas may be used as a transportation fuel or for electric generation, or is of a quality capable of being injected into a natural gas pipeline.

Biogas used to produce RNG comes from various sources, including municipal solid waste landfills, digesters at water resource recovery facilities, livestock farms, food production

¹⁰ *Id.*

¹¹ United States Energy Information Administration, *Biofuels explained*, Jul. 19, 2022, <https://www.eia.gov/energyexplained/biofuels/> (last visited Feb. 1, 2024).

¹² United States Energy Information Administration. *Biofuels explained: Biodiesel, renewable diesel, and other biofuels*, Jul. 29, 2022, <https://www.eia.gov/energyexplained/biofuels/biodiesel-rd-other-basics.php>, (last visited Feb. 1, 2024).

¹³ *Id.*

¹⁴ United States Energy Information Administration, *Biofuels explained*, *supra* note 11.

¹⁵ United States Energy Information Administration, *Natural gas explained*, Dec. 27, 2022, <https://www.eia.gov/energyexplained/natural-gas/> (last visited Feb. 1, 2024)

¹⁶ Environmental Protection Agency, *Landfill Methane Outreach Program (LMOP): Renewable Natural Gas*, <https://www.epa.gov/lmop/renewable-natural-gas> (last visited Feb. 1, 2024).

¹⁷ Section 366.91(2)(e), F.S., defines “renewable energy, in part, as energy produced from biomass. Section 366.91(2)(b), F.S., defines “biomass” in part, as “a power source that is comprised of, but not limited to, combustible residues or gases from...waste, byproducts, or products from agricultural and orchard crops, waste or coproducts from livestock and poultry operations, waste or byproducts from food processing, urban wood waste, municipal solid waste, municipal liquid waste treatment operations, and landfill gas.” RNG would be such a combustible gas.

facilities, and organic waste management operations.¹⁸ Raw biogas has a methane content between 45 and 65 percent.¹⁹ Once biogas is captured, it is treated in a process called conditioning or upgrading, which involves the removal of water, carbon dioxide, hydrogen sulfide, and other trace elements. After this process, the nitrogen and oxygen content is reduced and the RNG has a methane content comparable to natural gas and is thus a suitable energy source in applications that require pipeline-quality gas, such as vehicle applications.²⁰

RNG meeting certain standards, qualifies as an advanced biofuel under the Federal Renewable Fuel Standard Program.²¹ This program was enacted by Congress in order to reduce greenhouse gas emissions by reducing reliance on imported oil and expanding the nation's renewable fuels sector.²²

Hydrogen Fuel

The production of hydrogen involves the separation of the element from other elements in which it occurs. While there are many different sources of hydrogen and methods for producing it as a fuel, the most common methods used currently are steam-methane reforming and electrolysis.²³ Through either method, hydrogen is not an energy source, per se, since it is produced using other energy sources. Rather, produced hydrogen is an energy carrier.²⁴

Steam-Methane Reforming

The most-widely used method for hydrogen production, which accounts for nearly all commercially-produced hydrogen in the United States, is steam-methane reforming. With steam-methane reforming, hydrogen atoms are separated from carbon atoms in methane using high temperature (1,300-1,800 degrees Fahrenheit) under 3-25 bar pressure²⁵ in the presence of a catalyst. The end-result of this process is the production of hydrogen, carbon-monoxide, and a small amount of carbon dioxide.²⁶

¹⁸ Environmental Protection Agency, *supra* note 16.

¹⁹ *Id.*

²⁰ United States Department of Energy, *Renewable Natural Gas Production*, https://afdc.energy.gov/fuels/natural_gas_renewable.html (last visited Feb. 1, 2024).

²¹ United States Department of Energy, *Renewable Fuel Standard*, [https://afdc.energy.gov/laws/RFS#:~:text=The%20Renewable%20Fuel%20Standard%20\(RFS,Act%20of%202007%20\(EIS A\)](https://afdc.energy.gov/laws/RFS#:~:text=The%20Renewable%20Fuel%20Standard%20(RFS,Act%20of%202007%20(EIS A)) (last visited: Feb. 1, 2024).

²² Environmental Protection Agency, *Renewable Fuel Standard Program*, <https://www.epa.gov/renewable-fuel-standard-program> (last visited Feb. 1, 2024).

²³ United States Energy Information Administration, *Hydrogen Explained: Production of Hydrogen*, Jan. 21, 2022, [https://www.eia.gov/energyexplained/hydrogen/production-of-hydrogen.php#:~:text=The%20two%20most%20common%20methods,electrolysis%20\(splitting%20water%20with%20electricity,\(last](https://www.eia.gov/energyexplained/hydrogen/production-of-hydrogen.php#:~:text=The%20two%20most%20common%20methods,electrolysis%20(splitting%20water%20with%20electricity,(last) visited Feb. 1, 2024)

²⁴ International Renewable Energy Agency, *Hydrogen*, available at <https://www.irena.org/Energy-Transition/Technology/Hydrogen> (last visited Feb. 1, 2024).

²⁵ One bar equals 14.5 pounds per square inch of pressure. For comparison, at sea level, the average air pressure on Earth is 1.0132 bars. National Oceanic and Atmospheric Administration, *Air Pressure*, <https://www.noaa.gov/jetstream/atmosphere/air-pressure#:~:text=The%20standard%20pressure%20at%20sea,the%20atmosphere%20decreases%20with%20height> (last visited Feb. 1, 2024).

²⁶ United States Energy Information Administration, *Hydrogen Explained: Production of Hydrogen*, *supra* note 23.

For industrial facilities and petroleum refineries, natural gas is the typical base material from which to produce hydrogen by steam-methane reforming. Biogas and landfill gas is also a base material to produce hydrogen used by several fuel cell power plants in the United States.

Electrolysis

Electrolysis, in the sense of hydrogen production, means a process where hydrogen is split from water using an electric current. On a large, commercial scale, the process may be referred to as power-to-gas, where power is electricity and gas is hydrogen.²⁷ This hydrogen is then captured and used or sold as an end product or as a fuel to generate electricity.²⁸ The electrolysis process itself is emission-free and has no by-products other than hydrogen and oxygen. However, the energy source used to power the electrolysis (which could be from renewables, nuclear, or fossil fuels) may or may not be emission-free or have other byproducts.

Hydrogen Categories

Recently, to distinguish between the energy sources used to power hydrogen production, hydrogen producers, marketers, government agencies, and others have used a color-coded system. The nine commonly used color categories are detailed below:

- Green: Hydrogen produced by water electrolysis and employing renewable electricity as the fuel source. It is so called because the process itself does not produce emissions.
- Blue: Hydrogen produced from fossil fuels, but the carbon dioxide produced by the process is sequestered underground. Thus, the process is considered carbon neutral.
- Gray: Hydrogen produced by steam-methane reforming and the emissions produced from the burning of fossil fuels in the method are released into the atmosphere.
- Black or Brown: Hydrogen produced from the burning of coal, “black” being from the burning of bituminous coal and “brown” being from the burning of lignite coal. A comparatively large amount of carbon dioxide and carbon monoxide is released into the atmosphere with this type of production.
- Turquoise: This now experimental method of hydrogen production involves the thermal splitting of methane through pyrolysis. Though carbon is formed in this process, it is in a solid state that can be stored and not a carbon dioxide gas.
- Purple: Hydrogen made using nuclear power and heat through the combined chemo thermal electrolysis splitting of water.
- Pink: This is the production of hydrogen through electrolysis where the energy source is electricity from a nuclear power plant.
- Red: Hydrogen produced through high-temperature catalytic splitting of water using nuclear power thermal energy as an energy source.
- White: Naturally-occurring hydrogen.²⁹

²⁷ *Id.*

²⁸ Florida Public Service Commission, *Bill Analysis for SB 1162* (Mar. 14, 2023) (on file with the Senate Regulated Industries Committee).

²⁹ Bulletin H2, *Hydrogen Colours Codes*, available at <https://www.h2bulletin.com/knowledge/hydrogen-colours-codes/> (last visited: Jan. 25, 2024).

Transmission and Use of Hydrogen Fuel

Due to hydrogen's low volumetric energy density, transportation, storage, and final delivery to the point of use, it can have a significant impact on the cost of using hydrogen as a fuel carrier. These factors can lead to inefficiencies that increase the farther hydrogen must be transported before reaching its end use.³⁰ Thus, currently, most hydrogen is produced in close proximity to its end use.³¹ However, technology is in development that may bring these costs down and allow for easier transport and transmission of hydrogen.³²

The two typical methods for transporting hydrogen fuel currently are via pipeline or by truck through the use of cryogenic liquid tanker trucks or gaseous tube trailers. Pipelines are most popular in areas where demand is high and expected to remain stable or grow. Trucking of hydrogen is used in areas with less demand.³³

Potential uses for hydrogen are in:³⁴

- Industrial uses such as powering oil refineries and powering ammonia, methanol, and steel production. Currently, this is the largest use, by far, for hydrogen.
- Transportation, powering hydrogen-fueled vehicles.
- Buildings where hydrogen can be blended into existing natural gas networks. It is possible currently to blend small amounts of hydrogen in existing natural gas transmission systems with little to no changes to infrastructure, equipment, and appliances.
- Power generation where emerging technology is available to use hydrogen as a medium to store renewable energy, such as solar and wind. Hydrogen and ammonia can be used in gas turbines to increase power system flexibility, and ammonia can be used to reduce emissions from coal-fired power plants.

Florida Public Service Commission

The Florida Public Service Commission (PSC) is an arm of the legislative branch of government.³⁵ The role of the PSC is to ensure Florida's consumers receive utility services, including electric, natural gas, telephone, water, and wastewater, in a safe, affordable, and reliable manner.³⁶ In order to do so, the PSC exercises authority over public utilities in one or more of the following areas: rate base or economic regulation; competitive market oversight; and monitoring of safety, reliability, and service issues.³⁷

³⁰ United States Office of Energy Efficiency and Renewable Energy, *Hydrogen Delivery*, available at <https://www.energy.gov/eere/fuelcells/hydrogen-delivery> (last visited: Feb. 1, 2024).

³¹ Florida Public Service Commission, *Bill Analysis for SB 1162*, *supra* note 28.

³² See Florida Public Service Commission, *Bill Analysis for SB 1162*, *supra* note 28, which describes potential new technologies that can overcome the transportation and transmission cost hurdle for hydrogen.

³³ United States Office of Energy Efficiency and Renewable Energy, *supra* note 30.

³⁴ International Renewable Energy Agency, *supra* note 24.

³⁵ Section 350.001, F.S.

³⁶ See Florida Public Service Commission, *Florida Public Service Commission Homepage*, <http://www.psc.state.fl.us> (last visited Feb. 1, 2024).

³⁷ Florida Public Service Commission, *About the PSC*, <https://www.psc.state.fl.us/about> (last visited Feb. 1, 2024).

Electric and Gas Utilities

The PSC monitors the safety and reliability of the electric power grid³⁸ and may order the addition or repair of infrastructure as necessary.³⁹ The PSC has broad jurisdiction over the rates and service of investor-owned electric and gas utilities⁴⁰ (called “public utilities” under ch. 366, F.S.).⁴¹ However, the PSC does not fully regulate municipal electric utilities (utilities owned or operated on behalf of a municipality) or rural electric cooperatives. The PSC does have jurisdiction over these types of utilities with regard to rate structure, territorial boundaries, bulk power supply operations, and planning.⁴² Municipally-owned utility rates and revenues are regulated by their respective local governments or local utility boards. Rates and revenues for a cooperative utility are regulated by its governing body elected by the cooperative’s membership.

Municipal Electric and Gas Utilities, and Special Gas Districts, in Florida

A municipal electric or gas utility is an electric or gas utility owned and operated by a municipality. Chapter 366, F.S., provides the majority of electric and gas utility regulations for Florida. While ch. 366, F.S., does not provide a definition, per se, for a “municipal utility,” variations of this terminology and the concept of these types of utilities appear throughout the chapter. Currently, Florida has 33 municipal electric utilities that serve over 14 percent of the state’s electric utility customers.⁴³ Florida also has 27 municipally-owned gas utilities and four special gas districts.⁴⁴

Rural Electric Cooperatives in Florida

At present, Florida has 18 rural electric cooperatives, with 16 of these cooperatives being distribution cooperatives and two being generation and transmission cooperatives.⁴⁵ These cooperatives operate in 57 of Florida’s 67 counties and have more than 2.7 million customers.⁴⁶ Florida rural electric cooperatives serve a large percentage of area, but have a low customer density. Specifically, Florida cooperatives serve approximately 10 percent of Florida’s total electric utility customers, but their service territory covers 60 percent of Florida’s total land mass. Each cooperative is governed by a board of cooperative members elected by the cooperative’s membership.⁴⁷

³⁸ Section 366.04(5) and (6), F.S.

³⁹ Section 366.05(1) and (8), F.S.

⁴⁰ Section 366.05, F.S.

⁴¹ Section 366.02(8), F.S.

⁴² Florida Public Service Commission, *About the PSC*, *supra* note 37.

⁴³ Florida Municipal Electric Association, *About Us*, <https://www.flpublicpower.com/about-us> (last visited Feb. 1, 2024).

⁴⁴ Florida Public Service Commission, *2023 Facts and Figures of the Florida Utility Industry*, pg. 13, Apr. 2023 (available at: <https://www.floridapsc.com/pscfiles/website-files/PDF/Publications/Reports/General/FactsAndFigures/April%202023.pdf>). A “special gas district” is a dependent or independent special district, setup pursuant to ch. 189, F.S., to provide natural gas service. Section 189.012(6), F.S., defines a “special district” as “a unit of local government created for a special purpose, as opposed to a general purpose, which has jurisdiction to operate within a limited geographic boundary and is created by general law, special act, local ordinance, or by rule of the Governor and Cabinet.”

⁴⁵ Florida Electric Cooperative Association, *Members*, <https://feca.com/members/> (last visited Feb 1, 2024).

⁴⁶ Florida Electric Cooperative Association, *Our History*, <https://feca.com/our-history/> (last visited Feb. 1, 2024).

⁴⁷ *Id.*

Public Electric and Gas Utilities in Florida

There are four investor-owned electric utility companies (electric IOUs) in Florida: Florida Power & Light Company (FPL), Duke Energy Florida (Duke), Tampa Electric Company (TECO), and Florida Public Utilities Corporation (FPUC).⁴⁸ In addition, there are eight investor-owned natural gas utility companies (gas IOUs) in Florida: Florida City Gas, Florida Division of Chesapeake Utilities, FPUC, FPUC-Fort Meade Division, FPUC-Indiantown Division, Peoples Gas System, Sebring Gas System, and St. Joe Natural Gas Company. Of these eight gas IOUs, five engage in the merchant function servicing residential, commercial, and industrial customers: Florida City Gas, FPUC, FPUC-Fort Meade Division, Peoples Gas System, and St. Joe Natural Gas Company. Florida Division of Chesapeake Utilities, FPUC-Indiantown Division, and Sebring Gas System are only engaged in firm transportation service.⁴⁹

Electric IOU and Gas IOU rates and revenues are regulated by the PSC and the utilities must file periodic earnings reports, which allow the PSC to monitor earnings levels on an ongoing basis and adjust customer rates quickly if a company appears to be overearning.⁵⁰

Section 366.041(2), F.S., requires public utilities to provide adequate service to customers. As compensation for fulfilling that obligation, s. 366.06, F.S., requires the PSC to allow the IOUs to recover honestly and prudently invested costs of providing service, including investments in infrastructure and operating expenses used to provide electric service.⁵¹

Natural Gas Transmission

Natural gas transmission companies are regulated by the PSC under ch. 368, F.S. The term “natural gas transmission company,” as defined in s. 368.103, F.S., “means any person owning or operating for compensation facilities located wholly within this state for the transmission or delivery for sale of natural gas.” The term does not include “any person that owns or operates facilities primarily for the local distribution of natural gas or that is subject to the jurisdiction of the Federal Energy Regulatory Commission under the Natural Gas Act, 15 U.S.C. ss. 717 et seq., or any municipalities or any agency thereof, or a special district created by special act to distribute natural gas.” Section 364.104, F.S., authorizes the PSC to “fix and regulate rates and services of natural gas transmission companies, including, without limitation, rules and regulations for:”

- Determining customers and services classifications;
- Determining rate applicability; and
- “Ensuring that the provision (including access to transmission) or abandonment of service by a natural gas transmission company is not unreasonably preferential, prejudicial, or unduly discriminatory.”

⁴⁸ Florida Public Service Commission, *2023 Facts and Figures of the Florida Utility Industry*, *supra* note 44, at 5.

⁴⁹ *Id.* at 14. Firm transportation service is offered to customers under schedules or contracts which anticipate no interruption under almost all operating conditions. *See* Firm transportation service, 18 CFR s. 284.7.

⁵⁰ PSC, *2022 Annual Report*, p. 6, (available at: <https://www.floridapsc.com/pscfiles/website-files/PDF/Publications/Reports/General/AnnualReports/2022.pdf>) (last visited Feb. 1, 2024).

⁵¹ *Id.*

Section 368.105, F.S., provides the procedures for the PSC to set rates and services requirements for natural gas transmission companies in Florida.

Under chapter 368, F.S., the PSC is authorized to inspect intrastate natural gas systems to ensure compliance with rules and regulations regarding safety standards.⁵² Currently, Florida has three major pipelines: Florida Gas Transmission Company, Gulfstream Natural Gas System, and Sabal Trail Interstate Pipeline. The state also has two minor pipelines: Gulf South Pipeline Company and Southern Natural Gas.⁵³

Experimental and Transitional Rates

Section 366.075, F.S., authorizes the PSC to approve experimental or transitional rates for the purpose of encouraging energy conservation or efficiency. This provision is used by the PSC to allow electric and natural gas utilities under its rate-regulatory jurisdiction to conduct limited scope pilot programs.

Such rates must be limited in geographic area and be for a limited period of time. The PSC may approve the area used in testing experimental rates and must specify in the order setting those rates the area that will be affected by those rates. The PSC can extend this time period “if it determines that further testing is necessary to fully evaluate the effectiveness of such experimental rates.”

Mutual Aid Agreements for Electric Utilities

Florida law requires electric utilities to take steps to minimize outages during major weather events. Electric IOUs are required to file a transmission and distribution storm protection plan, for approval by the PSC that covers their immediate 10-year planning period. This plan must explain the systematic approach the utility will follow to achieve the objectives of reducing restoration costs and outage times associated with extreme weather events and enhancing reliability. This plan is updated every three years by the utility.⁵⁴

For municipal electric utilities and rural electric cooperatives, the PSC rule requires the utilities to submit, every three years, a report as to the extent that their “construction standards, policies, practices, and procedures are designed to address the ability of transmission and distribution facilities to mitigate damage caused by extreme weather.”⁵⁵

During routine outage events, electric utilities will generally use their own crews or contractors to repair damage and restore power. However, during major natural disasters (such as a tropical weather system, severe winter weather, or wildfire), the task of restoring power is typically so considerable that utilities will need outside assistance to fully restore power in a timely manner.⁵⁶ Mutual aid agreements allow utilities to voluntarily form partnerships among utilities in a region

⁵² Florida Public Service Commission, *2023 Facts and Figures of the Florida Utility Industry*, *supra* note 44, at 13.

⁵³ *Id.*

⁵⁴ Section 366.96, F.S.

⁵⁵ Fla. Admin. Code R. 25-6.0343(3).

⁵⁶ Miles Keogh and Sharon Thomas, National Association of Regulatory Commissioners, *Regional Mutual Assistance Groups: A Primer*, Nov. 2015 (available at: <https://pubs.naruc.org/pub/536E475E-2354-D714-5130-C13478337428>)(last visited Feb. 21, 2024).

to obtain this assistance at agreed-upon terms. These agreements allow utilities to avoid having to keep large numbers of emergency crews on staff all of the time. The types of resources shared during an assistance response include utility employees and contractors, specialized utility and construction equipment, supplies, and information.⁵⁷

Many of the mutual aid agreements in the United States among electric IOUs are managed by one of seven regional mutual assistance groups (RMAGs).⁵⁸ RMAGs “facilitate the process of identifying available restoration workers and help companies coordinate the logistics and personnel involved in restoration efforts.”⁵⁹ The RMAG for Florida is the Southeastern Electric Exchange RMAG (SEE RMAG). The SEE RMAG has members in all the Gulf Coast states, the East Coast states (from Florida up to New Jersey), Pennsylvania, Ohio, Indiana, Illinois, Kentucky, and West Virginia.⁶⁰ Though membership in a mutual aid agreement is not required under Florida law for any electric utility, all four of Florida’s electric IOUs are members of the SEE RMAG.

Municipal utilities and rural electric cooperatives have their own mutual assistance programs. The American Public Power Association (APPA), together with state and regional public power utilities and organizations, coordinates a network of mutual aid agreements for public power (called the Mutual Aid Network).⁶¹ The Mutual Aid Network connects over 2,000 organizations to give or receive assistance during major power outages,⁶² and municipal electric utilities and rural electric cooperatives can join through executing a joint APPA/National Rural Electric Cooperative Association Agreement.⁶³ Of Florida’s 33 municipal electric utilities, 28 are part of the Mutual Aid Network;⁶⁴ and 15 of Florida’s 16 distribution rural electric cooperatives are part of the Mutual Aid Network.⁶⁵

Preemption over Utility Service Restrictions

Section 366.032, F.S., provides that “a municipality, county, special district, or other political subdivision of the state may not enact or enforce a resolution, ordinance, rule, code, or policy or take any action that restricts or prohibits or has the effect of restricting or prohibiting the types or

⁵⁷ *Id.*

⁵⁸ PSC, *Review of Florida’s Electric Utility Hurricane Preparedness and Restoration Actions 2018*, at 24-25, (available at [UtilityHurricanePreparednessRestorationActions2018.pdf](https://www.floridapsc.com/UtilityHurricanePreparednessRestorationActions2018.pdf) (floridapsc.com)) (last visited Feb. 22, 2024).

⁵⁹ Edison Electric Institute, *Understanding the Electric Power Industry’s Response and Restoration Process*, Oct. 2016 (available at: https://www.eei.org/-/media/Project/EEL/Documents/Issues-and-Policy/Reliability-and-Emergency-Response/MA_101.pdf) (last visited Feb. 22, 2024).

⁶⁰ Southeastern Electric Exchange, *About SEE*, <https://www.theexchange.org/aboutus.html> (last visited Feb. 22, 2024).

⁶¹ PSC, *Review of Florida’s Electric Utility Hurricane Preparedness and Restoration Actions 2018*, at 25, *supra* note 58.

⁶² APPA, *Mutual Aid and Emergency Response*, <https://www.publicpower.org/mutual-aid-and-emergency-response> (last visited Feb. 22, 2024).

⁶³ APPA, *APPA-NRECA Mutual Aid Agreement*, https://www.publicpower.org/system/files/documents/APPA-NRECA%20Mutual%20Aid%20Agreement%20Updated_0.pdf (last visited Feb 22, 2024).

⁶⁴ APPA, *FEMA Mutual Aid Agreement-Region IV*, <https://www.publicpower.org/fema-mutual-aid-agreement-region-iv> (last visited Feb. 22, 2024).

⁶⁵ APPA, *NRECA Members*, <https://www.publicpower.org/system/files/documents/Cooperative%20Mutual%20Aid%20Signatories%20from%20NRECA.pdf> (last visited Feb. 22, 2024).

fuel sources of energy production which may be used, delivered, converted, or supplied” by the following.⁶⁶

- Investor-owned electric utilities;
- Municipal electric utilities;
- Rural electric cooperatives;
- Entities formed by interlocal agreement to generate, sell, and transmit electrical energy;
- Investor-owned gas utilities;
- Gas districts;
- Municipal natural gas utilities;
- Natural gas transmission companies; and
- Category I liquefied petroleum gas dealers, category II liquefied petroleum gas dispensers, or category III liquefied petroleum gas cylinder exchange operator as defined in s. 527.01, F.S.

Section 366.032(2), F.S., also prohibits (except to enforce the Florida Building Code and Florida Fire Prevention Code) a municipality, county, special district, or other political subdivision of the state from restricting or prohibiting the use of an appliance using the fuels or energy types used, delivered, converted, or supplied by the entities above.

The section also provides that it acts retroactively to any provision that existed before its enactment in 2021.

Electric Vehicles

The U.S. Department of Energy’s Alternative Fuels Data Center (AFDC) uses the term, “electric-drive vehicles,” as referring collectively to hybrid electric vehicles (HEV), plug-in hybrid electric vehicles (PHEV), and all-electric vehicles (EV).⁶⁷ According to the AFDC:

- HEVs are primarily powered by an internal combustion engine that runs on conventional or alternative fuel and an electric motor using energy stored in a battery. The battery is charged through regenerative braking and the internal combustion engine, not by plugging in to charge.
- PHEVs are powered by an internal combustion engine and an electric motor using energy stored in a battery. They can operate in all-electric mode through a larger battery, which can be plugged in to an electric power source to charge. Most can travel between 20 and 40 miles on electricity alone, and then will operate solely on gasoline, similar to a conventional hybrid.

EVs use a battery to store the electric energy that is charged by plugging the vehicle into charging equipment. EVs always operate in all-electric mode and have typical driving ranges from 150 to 400 miles.⁶⁸

The primary difference between an EV and a traditional internal combustion engine (ICE) vehicle lies in their drive trains. The main components of an EV power train are its battery, a

⁶⁶ To the extent of serving the customers they are authorized to serve.

⁶⁷ U.S. Dept. Energy, AFDC, *Hybrid and Plug-In Electric Vehicles*, <https://afdc.energy.gov/vehicles/electric.html> (last visited Feb. 22, 2024).

⁶⁸ *Id.*

motor, and ancillary systems. The main components of an ICE power train are its liquid fuel storage, combustion chambers and related cooling system, transmission, and an exhaust system.⁶⁹

For purposes of vehicle registration, Florida law currently defines the term “electric vehicle” to mean “a motor vehicle that is powered by an electric motor that draws current from rechargeable storage batteries, fuel cells, or other sources of electrical current.”⁷⁰

Increased interest in EVs has been driven by higher gas prices and greenhouse gas emission concerns.⁷¹ However, limited EV range (and the related range anxiety⁷²), limitations in charging infrastructure, charging speed as it relates to time to refuel a traditional gasoline vehicle, and EV cost are some of the factors negatively impacting EV adoption.⁷³

Electric Vehicle Charging Stations

EVs need access to charging stations. For most EV users, charging starts at home or at fleet facilities. Charging stations at other commonly-visited locations, however, such as work, public destinations, and along roadways, can offer more flexible fueling charging opportunities. The growth of charging stations has made longer distance travel with EVs more feasible and has helped grow the market for EVs.⁷⁴

There are three general types of chargers:

- Level 1: Level 1 chargers use a standard 120-volt home outlet (i.e. a standard wall socket). Often EV automakers will include with the vehicle a charging cord that can plug directly into a 120-volt outlet. These are the slowest types of chargers and, on average, provide about five miles of driving distance per hour of charging.
- Level 2: Level 2 chargers use a 240-volt outlet. Such outlets are often used for larger home appliances with greater power needs, such as electric ovens and clothes dryers. To use such chargers at home, homeowners may need a professional to install a 240-volt outlet in a vehicle-accessible location and additional equipment installation may be necessary. Level 2 chargers can also be found in some public charging stations. Level two chargers, on average, provide about 25 miles of driving distance per hour of charging.
- Direct Charge Fast Chargers (DCFC): DCFC are the fastest types of chargers. These are not typically not found in homes, but are available at public charging stations and along

⁶⁹ Brandon S. Tracy, Cong. Research Serv., R47227, *Critical Minerals in Electric Vehicle Batteries*, (2022) (available at <https://crsreports.congress.gov/product/pdf/R/R47227>).

⁷⁰ Section 320.01(36), F.S.

⁷¹ *Id.*

⁷² Range anxiety is the feeling an EV driver has when the battery charge is low, and the usual sources of electricity are unavailable, striking a fear of being stranded. J.D. Power, *What is Range Anxiety with Electric Vehicles?*, Nov. 3, 2020, <https://www.jdpower.com/cars/shopping-guides/what-is-range-anxiety-with-electric-vehicles> (last visited Feb. 1, 2024).

⁷³ EV Connect, *10 Factors That Affect Widespread EV Adoption*, <https://www.evconnect.com/blog/10-factors-affecting-ev-adoption> (last visited Feb. 1, 2024).

⁷⁴ U.S. Dept. of Energy, *Developing Infrastructure to Charge Electric Vehicles*, https://afdc.energy.gov/fuels/electricity_infrastructure.html (Feb. 1, 2024).

roadways and highway routes. These types of chargers provide approximately 100 to 300 miles of driving for a 30-minute charge; some DCFC can charge even faster than this.⁷⁵

EV Charging in Florida

Since the current regulatory structure of electric utilities in Florida includes exclusive service territories, the sale of electricity to retail, or end-use customers by a third party is not permitted.⁷⁶ The Florida Legislature created an exemption for electric vehicle charging in 2012, under s. 366.94(4), F.S., declaring that the provision of electric vehicle charging to the public by a non-utility is not considered a retail sale of electricity under ch. 366, F.S. The rates, terms, and conditions of EV charging by a non-utility are not subject to PSC regulation.⁷⁷

Statistics provided by the U.S. Department of Energy show that Florida has the third largest EV charging infrastructure in the country, behind California and New York.⁷⁸ As of January 14, 2022, Florida has the following numbers of charging infrastructure:

- Station locations – 3,260.
- EV supply equipment ports – 9,072.
- Level 1 chargers – 24.
- Level 2 chargers – 6,843.
- DCFC – 2,205.

Natural Gas Transmission Pipeline Siting Act

Part VIII of ch. 403, F.S., is the Natural Gas Transmission Pipeline Siting Act (NGTPSA), and is Florida's process for licensing the construction and operation of natural gas pipelines in the state. The Federal Energy Regulatory Commission regulates interstate natural gas transmission and reviews proposals to build interstate natural gas pipelines. The Florida Department of Environmental Protection's (DEP's) role regarding pipelines is to handle in-state environmental regulatory matters for wetlands crossings, discharge of hydrostatic test waters and other applicable areas.⁷⁹ Under s. 403.9422, F.S., the PSC also has the responsibility to determine the need for a proposed natural gas pipeline regulated by NGTPSA and issue certificates of need as appropriate.

Section 403.9405(2), F.S., provides that the NGTPSA does not apply to:

- Natural gas transmission pipelines which are less than 15 miles in length or which do not cross a county line, unless the applicant has elected to apply for certification of that pipeline;
- Natural gas transmission pipelines for which a certificate of public convenience and necessity has been issued under s. 7(c) of the Natural Gas Act, 15 U.S.C. s. 717f, or a natural gas transmission pipeline certified as an associated facility to an electrical power plant pursuant

⁷⁵ Environmental Protection Agency, *Plug-in Electric Vehicle Charging: The Basics*, <https://www.epa.gov/greenvehicles/plug-electric-vehicle-charging-basics> (Feb. 1, 2024).

⁷⁶ FDOT, *EV Infrastructure Master Plan* (July 2021), p. 16, <https://fdotwww.blob.core.windows.net/sitefinity/docs/default-source/planning/fto/fdotevmp.pdf> (last visited Feb 1, 2024).

⁷⁷ Section 366.94(1), F.S.

⁷⁸ United States Department of Energy, *Alternative Fuels Data Center*, <https://afdc.energy.gov/> (last visited Feb. 1, 2024).

⁷⁹ Florida Department of Environmental Protection, *Natural Gas Pipeline Siting Act*, <https://floridadep.gov/water/siting-coordination-office/content/natural-gas-pipeline-siting-act> (last visited Feb. 1, 2024).

to the Florida Electrical Power Plant Siting Act, ss. 403.501-403.518, F.S., unless the applicant elects to apply for certification of that pipeline; and

- Natural gas transmission pipelines that are owned or operated by a municipality or any agency thereof, by any person primarily for the local distribution of natural gas, or by a special district created by special act to distribute natural gas, unless the applicant elects to apply for certification of that pipeline.

Nuclear Power

Nuclear power plants work, in a way, similarly to any other turbine-based power plant. In turbine-based power plants a moving fluid—water, steam, combustion gases, or even air—pushes blades mounted on a rotor. The force of the moving liquid spins the shaft of a generator. That generator then converts the kinetic energy of the spinning rotor to electrical energy. Types of turbines include steam, combustion (i.e. gas), hydroelectric, and wind.⁸⁰

Nuclear power plants work the same way, in that steam is used to spin a turbine to produce electricity. The unique part of a nuclear power plant is how that steam is produced. In a nuclear power plant, heat is used to make steam, and this heat is produced by a controlled fission nuclear reaction.⁸¹

In a traditional nuclear power plant, uranium, which has been processed into small ceramic pellets and stacked together in a sealed metal tube (called a fuel rod), is the fuel source. Fuel rods are bundled together (typically in bundles of more than 200 rods) to form a fuel assembly. Reactor cores are generally made up of around 200 assemblies, depending on power level. In the reactor, fuel rods are immersed in water, which acts as a coolant and moderator. Control rods are then inserted into the reactor core to reduce the nuclear reaction or removed to increase the nuclear reaction. This reaction creates heat to turn water into the steam that fuels the turbine.

There are over 400 commercial reactors worldwide, including 93 in the United States.

Advanced Small Modular Reactors

Advanced small modular reactors (SMRs) are currently under development in the United States. SMRs differ from traditional large nuclear power plants—which can take over a decade to build between planning, regulatory approval, and construction—⁸²in that they are made in factories and transported to sites ready to “plug and play” upon arrival. This reduces both capital costs and construction times. The smaller size of these reactors also makes them ideal for smaller electric grids and other locations where a large nuclear power plant is not feasible.⁸³

⁸⁰ United States Energy Information Administration, *Electricity Explained*, <https://www.eia.gov/energyexplained/electricity/how-electricity-is-generated.php> (last visited Feb. 1, 2024).

⁸¹ United States Department of Energy, *NUCLEAR 101: How Does a Nuclear Reactor Work?*, <https://www.energy.gov/ne/articles/nuclear-101-how-does-nuclear-reactor-work> (last visited Feb. 1, 2024).

⁸² United States Energy Information Administration, *Nuclear explained*, <https://www.eia.gov/energyexplained/nuclear/us-nuclear-industry.php> (last visited Feb. 1, 2024).

⁸³ United States Department of Energy, Office of Nuclear Energy, *Nuclear Reactor Technologies*, <https://www.energy.gov/ne/nuclear-reactor-technologies> (last visited Feb. 1, 2024).

Advanced Reactor Technologies

The Office of Nuclear Energy's Office of Advanced of Advanced Reactor Technologies (ART) sponsors research, development, and deployment of emerging nuclear reactor technologies.

While the technologies are varied, ART's main areas of focus currently are:

- Developing assessment methods for evaluating advanced SMR technologies and characteristics;
- Developing and testing of materials, fuels and fabrication techniques;
- Resolving key regulatory issues identified by Nuclear Regulatory Commission and the nuclear industry; and
- Developing advanced instrumentation and controls and human-machine interfaces.⁸⁴

Wind Energy

Wind energy is a form of renewable energy where wind is used to turn blades connected to a generator just downwind of the blades in the head (or nacelle) of a wind turbine. The spinning of this generator produces energy which can be used for specific needs or to provide power to the electric grid. A typical 2.8 megawatt, utility-scale wind turbine can produce enough electricity to power approximately 100,000 homes.⁸⁵ Wind power is the U.S.'s largest source of renewable energy;⁸⁶ however, its deployment in Florida is extremely limited. As of 2022, wind energy represented 0.38 percent of the total energy sources used in Florida;⁸⁷ none at the utility-scale. According to the United States Energy Information Administration, Florida does not have significant wind energy resources, onshore or offshore, and the state has no utility-scale-wind-powered generating capacity.⁸⁸

Good places for wind turbines are where the annual average wind speed is nine miles per hour (or four meters per second) for small wind turbines and 13 miles per hour (or 5.8 meters per second) for utility scale. Favorable sites for development include tops of smooth, rounded hills; open plains and water; and mountain gaps that funnel and intensify wind—and wind speeds go up with increasing elevation.⁸⁹ Florida's lower wind speed (like much of the rest of the southeast U.S. where there is also little wind energy development) and flat topography limit the viability of wind energy production in the states.

Offshore wind is the newest application of wind energy. Offshore wind involves placing wind turbines over bodies of water where wind speeds are generally higher and more constant.⁹⁰ In depths of less than 60 meters, turbines can be fixed to the bottom of a body of water. For deeper

⁸⁴ United States Department of Energy, Office of Nuclear Energy, *Advanced Reactor Technology*, <https://www.energy.gov/ne/advanced-reactor-technologies> (last visited Feb. 1, 2024).

⁸⁵ United States Office of Energy Efficiency and Reliability, *What is Wind Power*, <https://windexchange.energy.gov/what-is-wind> (last visited Feb. 22, 2024).

⁸⁶ *Id.*

⁸⁷ Florida Reliability Coordinating Council, *supra* note 2.

⁸⁸ United States Energy Information Administration, *Florida Profile Analysis*, *supra* note 1.

⁸⁹ United States Energy Information Administration, *Wind Explained*, Apr. 20, 2023, <https://www.eia.gov/energyexplained/wind/where-wind-power-is-harnessed.php> (last visited Feb. 22, 2024).

⁹⁰ American Geosciences Institute, *What are the advantages and disadvantages of offshore wind farms?*, <https://www.americangeosciences.org/critical-issues/faq/what-are-advantages-and-disadvantages-offshore-wind-farms> (last visited Feb. 22, 2024).

than 60 meters, turbines are floated, tethered to the floor of the body of water.⁹¹ These turbines then use undersea cables to transmit electricity to the grid.⁹²

Customer-Owned Renewable Generation

Section 366.91(2)(c), F.S., defines “customer-owned renewable generation” as “an electric generating system located on a customer’s premises that is primarily intended to offset part or all of the customer’s electricity requirements with renewable energy.” Under the traditional utility model, an electric utility would produce (or purchase at wholesale) energy which it, in turn, would provide to customers to power their homes and businesses through its energy grid. However, with the advent of technologies like electric vehicles, rooftop solar systems, battery storage systems, and smart appliances, customers are now able to provide services to support grid operations.⁹³

Customer-owned generation, such as rooftop solar and other small-scale distributed energy resources (DERs), offer a number of benefits to both customers and utilities, including:

- Reduction in reliance on the centralized grid which can increase energy resilience in times of power-interruption in times such as extreme weather events;
- Supplying affordable electricity to customers; and
- Supporting decarbonization efforts.⁹⁴

Despite its benefits, DERs can present challenges for electric utilities. Many of the electric grids today were designed, originally, for the 20th century where distributed energy generation was comparatively small or non-existent.⁹⁵ The grid was traditionally designed for centralized power generation and, primarily, a one-way power flow.⁹⁶ Greater system flexibility is needed where inputs of power may not be as predictable or controllable by the utilities themselves. The challenges for many grids include:

- The complexity of integrating a wide variety of highly-distributed energy sources.
- Variability of power production as wind and solar are not “always on” type of energy production methods, as this can present challenges in effective energy storage and management, reliability, and resilience.
- DERs can significantly influence electricity demand patterns, sometimes unpredictably. This can create issues with demand response and electricity load management.

⁹¹ United States Office of Energy Efficiency and Reliability, *What is Wind Power*, *supra* note 85.

⁹² United States Energy Information Administration, *Top 10 Things You Didn’t Know About Offshore Wind Energy*, <https://www.energy.gov/eere/wind/articles/top-10-things-you-didnt-know-about-offshore-wind-energy> (last visited Feb. 22, 2024).

⁹³ Utility Dive, *Consumers as partners: The evolving utility business model*, Jan. 17, 2023, <https://www.utilitydive.com/spons/consumers-as-partners-the-evolving-utility-business-model/640195/> (last visited Feb. 1, 2024).

⁹⁴ International Energy Agency, *Executive summary: Unlocking the Potential of Distributed Energy Resources*, <https://www.iea.org/reports/unlocking-the-potential-of-distributed-energy-resources/executive-summary> (last visited Feb. 1, 2024).

⁹⁵ *Id.*

⁹⁶ Dynamic Ratings, *What are Distributed Energy Resources*, <https://www.dynamicratings.com/solutions/smart-infrastructure-solutions/distributed-energy-resources/> (Feb 1, 2024).

- The wide deployment of DERs and smart technology has raised data privacy and security concerns as these devices integrate with the grid.⁹⁷

Smart demand response programs and load management strategies can help mitigate or reduce these issues.⁹⁸

Climate Friendly Public Business

Section 286.29, F.S., requires state agencies to follow certain procedures to reduce greenhouse gas emissions in conducting public business. The section requires that state agencies:

- Consult with the “Florida Climate-Friendly Preferred Products List” produced by the Department of Management Services (DMS),⁹⁹ in procuring products from state term contracts.¹⁰⁰ If the price is comparable, they must procure such products.¹⁰¹
- Contract only with hotels or conference facilities for meetings and conferences as recognized by the Green Lodging Program.^{102,103}
- Ensure vehicles meet minimum maintenance schedules shown to reduce fuel consumption and report such compliance to the DMS.¹⁰⁴
- When state agencies, state universities, community colleges, and local governments that purchase vehicles under a state purchasing plan that such vehicles are selected for greatest fuel efficiency available for a given use class when fuel economy data is available.¹⁰⁵
- Use ethanol and biodiesel blended fuels when available.¹⁰⁶
- Procure biofuels for fleet, to the greatest extent practicable, if the agency administers central fueling operations.¹⁰⁷

Department of Agriculture and Consumer Services

The Department of Agriculture and Consumer Services (DACCS) is a state agency created by s. 20.14, F.S., and is headed by an elected Commissioner of Agriculture—who is also designated

⁹⁷ *Id.*

⁹⁸ *Id.*

⁹⁹ The DMS keeps a Florida Climate-Friendly Preferred Products List at https://www.dms.myflorida.com/business_operations/state_purchasing/state_contracts_and_agreements/florida_climate_friendly_preferred_products_list, (last visited Feb. 1, 2024).

¹⁰⁰ Section 286.29(1), F.S.

¹⁰¹ *Id.*

¹⁰² The Florida Department of Environmental Protection designates and recognizes lodging facilities that make a commitment to conserve and protect Florida's natural resources through the Florida Green Lodging Program. To become designated, facilities must conduct a thorough property assessment and implement a specified number of environmental practices in five areas of sustainable operations: (1) communication and education with customers, employees, and the public; (2) waste reduction, reuse and recycling; (3) water conservation; (4) energy efficiency; and (5) indoor air quality. Florida Department of Environmental Protection, *Green Lodging*, <https://floridadep.gov/osi/green-lodging/content/about-florida-green-lodging-program> (Last visited Feb. 1, 2024).

¹⁰³ Section 286.29(2), F.S.

¹⁰⁴ Section 286.29(3), F.S.

¹⁰⁵ Section 286.29(4), F.S.

¹⁰⁶ Section 286.29(5), F.S.

¹⁰⁷ *Id.*

by the Florida Constitution as one of the three members of the Florida cabinet.¹⁰⁸ The DACS's responsibilities are wide-ranging, however, in general, they are to:

- Support and promote Florida agriculture;
- Protect the environment;
- Safeguard consumers; and
- Ensure the safety and wholesomeness of food.¹⁰⁹

Energy Planning and Development

Section 377.601, F.S., provides the legislative intent in regards to part II, of ch. 377, F.S., which provides energy resource planning and development policies for Florida. The section states that the legislature finds that:

[T]he state's energy security can be increased by lessening dependence on foreign oil; that the impacts of global climate change can be reduced through the reduction of greenhouse gas emissions; and that the implementation of alternative energy technologies can be a source of new jobs and employment opportunities for many Floridians. The Legislature further finds that the state is positioned at the front line against potential impacts of global climate change. Human and economic costs of those impacts can be averted by global actions and, where necessary, adapted to by a concerted effort to make Florida's communities more resilient and less vulnerable to these impacts. In focusing the government's policy and efforts to benefit and protect our state, its citizens, and its resources, the Legislature believes that a single government entity with a specific focus on energy and climate change is both desirable and advantageous. Further, the Legislature finds that energy infrastructure provides the foundation for secure and reliable access to the energy supplies and services on which Florida depends. Therefore, there is significant value to Florida consumers that comes from investment in Florida's energy infrastructure that increases system reliability, enhances energy independence and diversification, stabilizes energy costs, and reduces greenhouse gas emissions.

Relatedly, s. 377.601(2), F.S., provides that it is the policy of the state to:

- Develop and promote the effective use of energy, discourage all forms of energy waste, and recognize and address the potential of global climate change wherever possible;
- Play a leading role in developing and instituting energy management programs aimed at promoting energy conservation, energy security, and the reduction of greenhouse gas emissions;
- Include energy considerations in all state, regional, and local planning;
- Utilize and manage effectively energy resources used within state agencies;
- Encourage local governments to include energy considerations in all planning and to support their work in promoting energy management programs;
- Include the full participation of citizens in the development and implementation of energy programs;

¹⁰⁸ FLA. CONST. art. IV, s. 4.

¹⁰⁹ Florida Department of Agriculture and Consumer Services, *About Us*, <https://www.fdacs.gov/About-Us> (last visited Feb. 1, 2024).

- Consider in its decisions the energy needs of each economic sector, including residential, industrial, commercial, agricultural, and governmental uses, and reduce those needs whenever possible;
- Promote energy education and the public dissemination of information on energy and its environmental, economic, and social impact;
- Encourage the research, development, demonstration, and application of alternative energy resources, particularly renewable energy resources;
- Consider in its decision-making, the social, economic, and environmental impacts of energy-related activities, including the whole-life-cycle impacts of any potential energy use choices, so that detrimental effects of these activities are understood and minimized; and
- Develop and maintain energy emergency preparedness plans to minimize the effects of an energy shortage within Florida.

Section 377.6015, F.S.,¹¹⁰ provides the role of the DACS in the state's energy resource planning and development. The section provides that the DACS may employ staff and counsel as needed in the performance of its duties, prosecute and defend legal actions in its own name, and form advisory groups consisting of members of the public to provide information on specific issues.

The section also requires the DACS to:

- Administer the Florida Renewable Energy and Energy-Efficient Technologies Grants Program under s. 377.804, F.S.;
- Develop policy for requiring grantees to provide royalty-sharing or licensing agreements with state government for commercialized products developed under a state grant;
- Administer the Florida Green Government Grants Act pursuant to s. 377.808, F.S., and set annual priorities for grants;
- Administer the information gathering and reporting functions pursuant to ss. 377.601-377.608, F.S.;
- Administer the provisions of the Florida Energy and Climate Protection Act pursuant to ss. 377.801-377.804, F.S.;
- Advocate for energy and climate change issues and provide educational outreach and technical assistance in cooperation with the state's academic institutions;
- Be a party in the proceedings to adopt goals and submit comments to the PSC pursuant to s. 366.82, F.S., which requires the PSC to adopt appropriate goals for increasing the efficiency of energy consumption and increasing the development of demand-side renewable energy systems; and
- Adopt rules pursuant to ch. 120, F.S., in order to implement all powers and duties described in the section.

Florida Renewable Energy and Green Government Programs

Part III of ch. 377, F.S., provides the state's renewable energy and green government programs, including the Florida Energy and Climate Protection Act in ss. 377.801-377.804, F.S.

¹¹⁰ Section 377.703, F.S., also provides an extensive list of the DACS functions regarding energy supply and demand.

The purpose of the Florida Energy and Climate Protection Act is to “provide incentives for Florida’s citizens, businesses, school districts, and local governments to take action to diversify the state’s energy supplies, reduce dependence on foreign oil, and mitigate the effects of climate change by providing funding for activities designed to achieve these goals.” The act’s grant programs “are intended to stimulate capital investment in and enhance the market for renewable energy technologies and technologies intended to diversify Florida’s energy supplies, reduce dependence on foreign oil, and combat or limit climate change impacts.”¹¹¹

The grants provided under the act, as part of the Renewable Energy and Energy-Efficient Technologies Grants Program administered by the DACS, “provide renewable energy matching grants for demonstration, commercialization, research, and development projects relating to renewable energy technologies and innovative technologies that significantly increase energy efficiency for vehicles and commercial buildings”¹¹² Grants under the program may be provided to municipalities and county governments, established for-profit companies licensed to do business in Florida, universities and colleges in the state, utilities located and operating within the state, not-for-profit organizations, and other qualified persons as determined by the DACS.

Part III of ch. 377, F.S., also includes additional programs not under the Florida Energy and Climate Protection Act:

- The energy and conservation clearinghouse which develops a clearinghouse of information regarding cost savings associated with various energy efficiency and conservation measures.¹¹³
- The Florida Green Governments Grant Act which provides grants to assist local governments in the development and implementation of programs that achieve green standards.¹¹⁴
- The Energy Economic Zone Pilot Program to develop “a model to help communities cultivate green economic development, encourage renewable electric energy generation, manufacture products that contribute to energy conservation and green jobs, and further implement chapter 2008-191, Laws of Florida, relative to discouraging sprawl and developing energy-efficient land use patterns and greenhouse gas reduction strategies.”¹¹⁵
- The Natural Gas Fuel Fleet Vehicle Rebate Program which provides rebates for eligible expenses relating to investments in in the conversion, purchase of a natural gas fleet vehicles.¹¹⁶
- The Municipal Solid Waste-to-Energy program which provides grants to” municipal solid waste-to-energy facilities to incentivize the production and sale of energy from municipal solid waste-to-energy facilities while also reducing the amount of waste that would otherwise be disposed of in a landfill.”¹¹⁷
- A program where the DACS is authorized to post information on its website information about the alternative fueling stations or electric vehicle charging stations available in the state.¹¹⁸

¹¹¹ Section 377.802, F.S.

¹¹² Section 377.804, F.S.

¹¹³ Section 377.805, F.S.

¹¹⁴ Section 377.808, F.S.

¹¹⁵ Section 377.809, F.S.

¹¹⁶ Section 377.810, F.S.

¹¹⁷ Section 377.814, F.S.

¹¹⁸ Section 377.815, F.S.

- A program operated by Office of Energy within the DACS for allocating or reallocating the qualified energy conservation bond volume limitation provided by 26 U.S.C. s. 54D.¹¹⁹

Acts of Destruction against Energy Infrastructure

The National Conference of State Legislatures (NCSL) suggests that states should be aware of and be prepared for actual physical threats perpetrated by humans to energy infrastructure.¹²⁰ The U.S. Department of Energy’s annual summary of Electric Emergency Incident and Disturbance Reports indicates at least 25 reports were filed as actual physical attacks in electric utilities perpetrated by humans in 2022, compared to six attacks in 2021.¹²¹

Cyber-attacks are also a growing threat to energy infrastructure. The growing reliance on digital technology to better utility infrastructure and business operations in general, has increased the exposure of these industries to cyber threats.¹²² The annual summary of Electric Emergency Incident and Disturbance Reports indicated six cyber-related events in 2022, compared to seven for 2021.¹²³ However, according to the International Energy Agency, the publicly available information available on such cyber-attacks is limited due to under-reporting and lack of detection, and there is evidence that attacks have been growing rapidly since 2018.¹²⁴

Homeowners’ Associations

Chapter 720, F.S., provides statutory recognition to corporations that operate residential communities in Florida as well as procedures for operating homeowners’ associations. These laws protect the rights of association members without unduly impairing the ability of such associations to perform their functions.¹²⁵

A “homeowners’ association” is defined as a:

Florida corporation responsible for the operation of a community or a mobile home subdivision in which the voting membership is made up of parcel owners or their agents, or a combination thereof, and in which membership is a mandatory condition of parcel ownership, and which is

¹¹⁹ Section 377.816, F.S. Qualified energy conservation bonds (QECBs) were created in the federal 2008 Energy Improvement and Extension Act. The purpose of the bonds were to federally fund states, territories, local governments, and tribal governments to issue QECBs to finance renewable energy and efficiency projects. United States Department of Energy, *Qualified Energy Conservation Bonds*, Aug. 2016 (available at:

<https://www.energy.gov/sites/prod/files/2017/04/f34/qecbpaper0816.pdf>) (last visited Feb. 1, 2024). 26 U.S.C. s. 54D was repealed by Pub.L. 115-97, Title I, s. 13404(a), effective Dec. 22, 2017.

¹²⁰ The National Conference of State Legislatures, *Human-Driven Physical Threats to Energy Infrastructure*, updated May 22, 2023, available at www.ncsl.org/energy/human-driven-physical-threats-to-energy-infrastructure (last visited Feb. 1, 2024).

¹²¹ *Id.*; U.S. Department of Energy, *Office of Cybersecurity, Energy Security, & Emergency Response, Electric Disturbance Events (OE-417) Annual Summaries*, available at https://www.oe.netl.doe.gov/OE417_annual_summary.aspx (last visited Feb. 1, 2024).

¹²² International Energy Agency, *Cybersecurity – is the power system lagging behind?*, Aug. 1, 2023, (<https://www.iea.org/commentaries/cybersecurity-is-the-power-system-lagging-behind>).

¹²³ *Id.*

¹²⁴ *Id.*

¹²⁵ See s. 720.302(1), F.S.

authorized to impose assessments that, if unpaid, may become a lien on the parcel.¹²⁶

Unless specifically stated to the contrary in the articles of incorporation, homeowners' associations are also governed by ch. 607, F.S., relating to for-profit corporations, or by ch. 617, F.S., relating to not-for-profit corporations.¹²⁷

Homeowners' associations are administered by a board of directors whose members are elected.¹²⁸ The powers and duties of homeowners' associations include the powers and duties provided in ch. 720, F.S., and in the governing documents of the association, which include a recorded declaration of covenants, bylaws, articles of incorporation, and duly-adopted amendments to these documents.¹²⁹ The officers and members of a homeowners' association have a fiduciary relationship to the members who are served by the association.¹³⁰

Unlike condominium associations, homeowners' associations are not regulated by a state agency. Section 720.302(2), F.S., expresses the legislative intent regarding the regulation of homeowners' associations:

The Legislature recognizes that it is not in the best interest of homeowners' associations or the individual association members thereof to create or impose a bureau or other agency of state government to regulate the affairs of homeowners' associations. However, in accordance with s. 720.311, [F.S.], the Legislature finds that homeowners' associations and their individual members will benefit from an expedited alternative process for resolution of election and recall disputes and presuit mediation of other disputes involving covenant enforcement and authorizes the department to hear, administer, and determine these disputes as more fully set forth in this chapter. Further, the Legislature recognizes that certain contract rights have been created for the benefit of homeowners' associations and members thereof before the effective date of this act and that ss. 720.301-720.407[, F.S.], are not intended to impair such contract rights, including, but not limited to, the rights of the developer to complete the community as initially contemplated.

The Division of Florida Condominiums, Timeshares, and Mobile Homes (division) within the Department of Business the Professional Regulation has limited regulatory authority over homeowners' associations. The division's authority is limited to the arbitration of recall election disputes.¹³¹

The governing document of a homeowners' association are:

¹²⁶ Section 720.301(9), F.S.

¹²⁷ Section 720.302(5), F.S.

¹²⁸ See ss. 720.303 and 720.307, F.S.

¹²⁹ See ss. 720.301 and 720.303, F.S.

¹³⁰ Section 720.303(1), F.S.

¹³¹ See s. 720.306(9)(c), F.S.

- The recorded declaration of covenants for a community and all duly adopted and recorded amendments, supplements, and recorded exhibits thereto; and
- The articles of incorporation and bylaws of the homeowners' association and any duly adopted amendments thereto.¹³²

III. Effect of Proposed Changes:

Section 1 creates s. 163.3210, F.S., relating to natural gas resiliency and reliability infrastructure. The section provides that it is the intent of the Legislature to maintain, encourage, and ensure adequate and reliable fuel sources for public utilities. The section finds that resiliency and reliability of fuel sources for public utilities is critical to Florida's economy; the ability of the state to recover from natural disasters; and to the health, safety, welfare, and quality of life of Florida residents.

Under the section, a resiliency facility¹³³ is a permitted use in all commercial, industrial, and manufacturing land use categories in a local government comprehensive plan and all commercial, industrial, and manufacturing districts. Such facilities must comply with setback and landscape criteria that would apply to other similar uses and local governments may adopt ordinances specifying such requirements.¹³⁴

The section also provides that, after July 1, 2024, local governments may not amend their comprehensive plans, land use maps, zoning districts, or land development regulations in a manner that would conflict with a resiliency facility's classification as a permitted and allowable use.

Section 2 amends s. 286.29, F.S., regarding energy guidelines for public businesses. The bill deletes a provision relating to legislative intent and the following provisions:

- The Department of Management Services' (DMS's) Florida Climate-Friendly Preferred Products List;
- A requirement that state agencies contract only with hotels or conference facilities for meetings and conferences as recognized by the Green Lodging Program;
- A requirement that, when state agencies, state universities, community colleges, and local governments purchase vehicles under a state purchasing plan that such vehicles are selected for greatest fuel efficiency available for a given use class when fuel economy data is available.

The section also creates a new provision requiring the DMS, in consultation with the Florida Department of Commerce (FDC) and the Department of Agriculture and Consumer Services (DACS), to develop a Florida Humane Preferred Products List. In developing this list, the DMS must assess products currently available for purchase under state term contracts that contain or consist of an energy storage device with a capacity of greater than one kilowatt-hour or that contain or consist of an energy generation device with a capacity of greater than 500 watts. The

¹³² Section 720.301(8), F.S.

¹³³ The section defines "resiliency facility" as "a facility owned and operated by a public utility for the purposes of assembling, creating, holding, securing, or deploying natural gas reserves for temporary use during a system outage or natural disaster."

¹³⁴ Provided that such requirements are not more excessive than those applied to similar other uses.

DMS must then identify the specific products that appear to be largely made free from forced labor, irrespective of the age of the worker. The section defines “forced labor” as any work performed or service rendered that is:

- Obtained by intimidation, fraud, or coercion, including by threat of serious bodily harm to, or physical restraint against, a person, by means of a scheme intended to cause the person to believe that if he or she does not perform such labor or render such service, the person will suffer serious bodily harm or physical restraint, or by means of the abuse or threatened abuse of law or the legal process;
- Imposed on the basis of a characteristic that has been held by the United States Supreme Court or the Florida Supreme Court to be protected against discrimination under the Fourteenth Amendment to the United States Constitution or under s. 2, Art. I of the State Constitution, including race, color, national origin, religion, gender, or physical disability;
- Not performed or rendered voluntarily by a person; or
- In violation of the Child Labor Law¹³⁵ or otherwise performed or rendered through oppressive child labor.

State agencies and political subdivisions in the state must, when procuring such energy products from state term contracts, first consult the Florida Humane Preferred Energy Products List and may not purchase or procure products not included in the list.

Section 3 amends s. 366.032, F.S., to include “development districts” in a provision that states a municipality, county, special district, or other political subdivision of the state may not enact or enforce a resolution, ordinance, rule, code, or policy or take any action that restricts or prohibits or has the effect of restricting or prohibiting the types or fuel sources of energy production which may be used, delivered, converted, or supplied by utilities, gas districts, natural gas transmission companies, and certain liquefied petroleum gas dealers, dispensers, and cylinder exchange operators.

The section also includes “development districts” in a provision that prohibits a municipality, county, special district, or other political subdivision of the state from restricting or prohibiting the use of an appliance using the fuels or energy types supplied by the energy and gas providers above.

Section 4 creates s. 366.042, F.S., relating to mutual aid agreements or electric cooperatives and municipal electric utilities. This section requires rural electric cooperatives¹³⁶ and municipal electric utilities to enter into and maintain, at least one of the following:

- A mutual aid agreement with a municipal electric utility;
- A mutual aid agreement with an electric cooperative;
- A mutual aid agreement with a public utility; or
- A pre-event agreement with a private contractor.

¹³⁵ Part I of ch. 450, F.S., provides the Child Labor Law for Florida.

¹³⁶ The bill uses the term “electric cooperatives;” however, the term used in ch. 366, F.S., to refer a cooperative organized and existing under the Rural Electric Cooperative Law is “rural electric cooperative.” This section is written under the assumption that this was the type of entity that the section was intended to refer to.

Rural electric cooperatives and municipal utilities must submit, on an annual basis by May 15, to the Public Service Commission (PSC) an attestation that they have complied with the above requirement. This provision does not give the PSC jurisdiction over the terms or conditions of such agreements. By May 30 of each year, the PSC must compile these attestations and submit them to the Department of Emergency Management (DEM). If a rural electric cooperative or municipal utility does not comply with this requirement, they are not eligible to receive state financial assistance, if such funding is available, for power restoration efforts following a natural disaster that is subject to a state of emergency declared by the Governor. Until the time the attestation is submitted, nothing in this section prevents a rural electric cooperative or municipal electric utility from receiving federal funds. This section does not alter the PSC's jurisdiction over public or electric utilities.

Section 5 amends s. 366.94, F.S., to allow the PSC to approve, upon petition of a public utility, voluntary electric vehicle charging programs, to become effective on or after January 1, 2025, to include, but not be limited to, residential, fleet, and public electric vehicle charging. To be approved, the PSC must determine that the public utility's general body of ratepayers, as a whole, will not pay to support recovery of its electric vehicle charging investment by the end of the useful life of the assets dedicated to the electric vehicle charging service. The section also makes clear that it does not preclude cost recovery for electric vehicle charging programs approved by the PSC before January 1, 2024.

Section 6 creates s. 366.99, F.S., authorizing natural gas public utilities to petition¹³⁷ the PSC to annually recover prudently incurred natural gas facilities relocation costs¹³⁸ to accommodate requirements imposed by the Florida Department of Transportation (FDOT) and local government entities. The section allows each utility to recover such costs through a charge separate and apart from base rates, referred to in the section as the natural gas facilities relocation cost recovery clause.

The section directs the PSC to establish an annual proceeding to review these petitions. This review is limited to:

- Determining the prudence of the utility's actual incurred natural gas facilities relocation costs;
- Determining the reasonableness of the utility's projected natural gas facilities relocation costs for the next calendar year; and
- Providing for a true-up of the costs with the projections on which past factors were set.

Any refund or collection made pursuant to the true-up process must include applicable interest.

The section also requires all costs approved pursuant to this clause be allocated to customer classes pursuant to the rate design most recently approved by the PSC. If a capital expenditure is

¹³⁷ The petition should describe the utility's natural gas facilities relocation costs for the next calendar year, actual natural gas facilities relocation costs for the prior calendar year, and proposed cost-recovery factors designed to recover such costs. Proceeding with implementing a plan before filing this petition would not constitute imprudence on the part of the utility.

¹³⁸ Such costs would include, but not be limited to, the costs to relocate or reconstruct facilities as required by a mandate, a statute, a law, an ordinance, or an agreement between the utility and an authority, including, but not limited to, costs associated with reviewing plans provided by an authority. The costs would not include any costs recovered through base rates.

recoverable as a natural gas facilities relocation cost, the public utility may recover the annual depreciation on the cost, calculated at the public utility's current approved depreciation rates, and a return on the undepreciated balance of the costs at the public utility's weighted average cost of capital using the last approved return on equity.

The section directs the PSC to adopt rules to implement the section as soon as practicable.

Section 7 amends s. 377.601, F.S., to substantially revise the legislative intent as it pertains to part II, of ch. 377, F.S., which provides energy resource planning and development policies for Florida. It deletes the legislative intent section as described on page 20 of this analysis. As rewritten, the intent provides that the purpose of the state's energy policy is to ensure an adequate, reliable, and cost-effective supply of energy for the state in a manner that promotes the health and welfare of the public and economic growth. The revised intent further states that governance of the state's energy policy be efficiently directed toward achieving this purpose.

For the purposes of the above, the revised section states that the state's energy policy should be guided by all of the following goals:

- Ensuring a cost-effective and affordable energy supply.
- Ensuring adequate supply and capacity.
- Ensuring a secure, resilient, and reliable energy supply, with an emphasis on a diverse supply of domestic energy resources.
- Protecting public safety.
- Protecting the state's natural resources, including its coastlines, tributaries, and waterways.
- Supporting economic growth.

In furtherance of the above goals, the rewritten section provides that it is state policy to:

- Promote the cost-effective development and effective use of a diverse supply of domestic energy resources in the state and discourage energy waste and deletes a provision on global climate change;
- Promote the cost-effective development and maintenance of energy infrastructure that is resilient to natural and manmade threats to the security and reliability of the state's energy supply and deletes programs aimed at promoting energy conservation, energy security, and the reduction of greenhouse gas emissions;
- Reduce reliance on foreign energy resources;
- Include energy reliability and security considerations in all state, regional, and local planning;
- Utilize and manage effectively energy resources used within state agencies;
- Encourage local governments to include energy considerations in all planning and to support their work in promoting energy management programs;
- Include the full participation of citizens in the development and implementation of energy programs;
- Consider in its decisions the energy needs of each economic sector, including residential, industrial, commercial, agricultural, and governmental uses, and reduce those needs whenever possible;
- Promote energy education and the public dissemination of information on energy and its impacts in relation to the goals stated above;

- Encourage the research, development, demonstration, and application of domestic energy resources, including the use of renewable energy resources;
- Consider, in its decision-making, the impacts of energy-related activities on the goals above, including the whole-life-cycle impacts of any potential energy use choices, so that detrimental effects of these activities are understood and minimized; and
- Develop and maintain energy emergency preparedness plans to minimize the effects of an energy shortage within the state Florida.

Section 8 amends s. 377.6015, F.S., to revise the duties of the DACS to conform to the changes made by the bill and require that the DACS advocate for energy issues consistent with the goals in proposed s. 377.601(2), F.S., provided in Section 7 of the bill.

Section 9 amends s. 377.703, F.S., to revise the duties of the DACS to conform to the changes made by the bill. It also eliminates a requirement that the DACS, when analyzing the energy data it collects and preparing long-range forecasts of energy supply and demand in coordination with the PSC (which is responsible for electricity and natural gas forecasts), that the forecasts contain plans for the development of renewable energy resources and reduction in dependence on depletable energy resources, particularly oil and natural gas. Instead, such forecasts must contain an analysis of the extent to which domestic energy resources, including renewable energy sources, are being utilized in the state.

The section also deletes a requirement that the forecasts contain:

- Consideration of alternative scenarios of statewide energy supply and demand for five, 10, and 20 years to identify strategies for long-range action, including identification of potential social, economic, and environmental effects. Instead, such consideration must be made for potential impacts in relation to the goals in proposed s. 377.601(2), F.S., provided in Section 7 of the bill.
- An assessment of the state's energy resources, including examination of the availability of commercially developable and imported fuels, and an analysis of anticipated effects on the state's environment and social services resulting from energy resource development activities or from energy supply constraints, or both. Instead, such assessments must contain an analysis of anticipated impacts in relation to the goals in proposed s. 377.601(2), F.S., provided in Section 7 of the bill, resulting from energy resource development activities or from energy supply constraints, or both.

The section also revises the duties of the DACS as it relates to the promotion of the development and use of renewable energy sources. The section deletes a requirement that the DACS establish goals and strategies for increasing the use of renewable energy in the state.

Section 10 creates s. 377.708, F.S., to provide the following definitions in relation to wind energy:

- "Coastline" means the established line of mean high water.
- "Offshore wind energy facility" means any wind energy facility located on waters of this state, including other buildings, structures, vessels, or electrical transmission cabling to be sited on waters of this state, or connected to corresponding onshore substations that are used to support the operation of one or more wind turbines sited or constructed on waters of this

state and any submerged lands or territorial waters that are not under the jurisdiction of the state.

- “Real property” means land, buildings, fixtures, and all other improvements to land. The terms “land,” “real estate,” “realty,” and “real property” may be used interchangeably.
- "Waters of this state" means any navigable waters of the United States within the territorial limits of this state, the marginal sea adjacent to this state and the high seas when navigated as a part of a journey or ride to or from the shore of this state, and all the inland lakes, rivers, canals and submerged lands under the jurisdiction of this state.
- "Wind energy facility" means an electrical wind generation facility or expansion thereof having at least a 400-watt rated capacity, including substations; meteorological data towers; aboveground, underground, and electrical transmission lines; and transformers, control systems, and other buildings or structures under common ownership or operating control used to support the operation of the facility the primary purpose of which is to offer electricity supply for sale.
- "Wind turbine" means a device or apparatus that has the capability to convert kinetic wind energy into rotational energy that drives an electrical generator consisting of a tower body and rotator with two or more blades. The term includes both horizontal and vertical axis turbines. The term does not include devices used to measure wind speed and direction, such as an anemometer.

The bill prohibits the construction, operation, or expansion of an offshore wind energy facility in Florida. The bill also prohibits the construction or operation of a wind turbine on real property within one mile of coastline, on waters of the state, and on any submerged lands. The bill authorizes the Department of Environmental Protection (DEP) to bring an action for injunctive relief against any person who owns, constructs, or operates an offshore wind energy facility or a wind turbine in violation of the provisions of the bill.

Under the bill, the DEP must review all applications for federal wind energy leases in the territorial waters of the United States adjacent to waters of Florida, and shall signify its approval or objection to each application.

Section 11 repeals the following sections:

- Sections 377.801-804, F.S., providing the Florida Energy and Climate Protection Act (Renewable Energy and Energy-Efficient Technologies Grants Program);
- Section 377.808, F.S., providing the Florida Green Governments Grant Act;
- Section 377.809, F.S., providing the Energy Economic Zone Pilot Program;
- Section 377.816, F.S., providing a program operated by Office of Energy within the DACS for allocating or reallocating the qualified energy conservation bond volume limitation provided by 26 U.S.C. s. 54D.

Section 12 provides for the programs deleted in Section 11 of the bill, there may not be:

- New or additional applications, certifications, or allocations approved.
- New letters of certification issued.
- New contracts or agreements executed.
- New awards made.

All certifications or allocations issued under such programs are rescinded except for the certifications of, or allocations to, those certified applicants or projects that continue to meet the applicable criteria in effect before July 1, 2024. Any existing contracts or agreements authorized under those programs must continue in full force and effect in accordance with the statutory requirements in effect when the contract or agreement was executed or last modified. However, further modifications, extensions, or waivers may not be made or granted relating to those contracts or agreements, except computations by the Department of Revenue of the income generated by or arising out of a qualifying project.

Section 13 amends s. 220.193, F.S., regarding the Florida renewable energy production credit, to conform to changes made by the bill.

Section 14 amends s. 288.9606, F.S., relating to the issue of revenue bonds, to conform to changes made by the bill.

Section 15 amends s. 380.0651, F.S., relating to statewide guidelines, standards, and exemptions, to conform to changes made by the bill.

Section 16 amends s. 403.9405, F.S., to provide that the Natural Gas Transmission Pipeline Siting Act does not apply to natural gas transmission pipelines which are less than 15 miles in length or which do not cross a county line, unless the applicant has elected to apply for certification of that pipeline. The section increases the 15-mile limit for non-applicability to be 100 miles.

Section 17 amends s. 720.3075, F.S., which relates to prohibited clauses in homeowners' association documents. The section provides that homeowners' association documents, including declarations of covenants, articles of incorporation, or bylaws, may not preclude the types or fuel sources of energy production which may be used, delivered, converted, or supplied by the following entities to customers within the homeowners' association that these entities are authorized to serve:

- Investor-owned electric utilities;
- Municipal electric utilities;
- Rural electric cooperatives;
- Entities formed by interlocal agreement to generate, sell, and transmit electrical energy;
- Investor-owned gas utilities;
- Gas districts;
- Municipal natural gas utilities;
- Natural gas transmission companies; and
- Category I liquefied petroleum gas dealers, category II liquefied petroleum gas dispensers, or category III liquefied petroleum gas cylinder exchange operators as defined in s. 527.01, F.S.

The section also prohibits association documents, including declarations of covenants, articles of incorporation, or bylaws, may not preclude the use of an appliance,¹³⁹ including a stove or grill,

¹³⁹ As used in this section, "appliance" means a device or apparatus manufactured and designed to use energy and for which the Florida Building Code or the Florida Fire Prevention Code provides specific requirements.

which uses the types or fuel source of energy productions which may be used, delivered, converted, or supplied by the entities above.

Section 18 requires the PSC to conduct an assessment, in consultation with the DEM, of the security and resiliency of the state's electric grid and natural gas facilities against both physical threats and cyber threats. In regards to the cyber threat assessment, the PSC is to also consult with the Florida Digital Service. The section also directs all electric utilities, natural gas utilities, and natural gas pipelines in the state to cooperate with the PSC to provide access to all information necessary to conduct the assessment. The bill requires the PSC, by July 1, 2025, to submit a report of its assessment to the Governor, the President of the Senate, and the Speaker of the House of Representatives. The report must also contain any recommendations for potential legislative or administrative actions that may enhance the physical security or cyber security of the state's electric grid or natural gas facilities.

Section 19 directs the PSC to study and evaluate the technical and economic feasibility of using advanced nuclear power technologies, including small modular reactors (SMRs), to meet the state's electrical power needs, and research means to encourage and foster the installation and use of such technologies at military installations in the state in partnership with public utilities. In conducting this study, the PSC is to consult with the FDOT and the DEM. The PSC is to submit a report of its findings, along with any recommendations for potential legislative or administrative actions, to the Governor, President of the Senate, and Speaker of the House of Representatives by April 1, 2025. The findings and recommendations must be consistent with the goals proposed in s. 377.601(2), F.S., provided in Section 7 of the bill.

Section 20 directs the FDOT, in consultation with the Office of Energy within the DACS, to study and evaluate the potential development of hydrogen fueling infrastructure, including fueling stations, to support hydrogen-powered vehicles that use the state highway system. The FDOT is to submit a report of its findings, along with any recommendations for potential legislative or administrative actions, to the Governor, President of the Senate, and Speaker of the House of Representatives by April 1, 2025. The findings and recommendations must be consistent with the goals proposed in s. 377.601(2), F.S., provided in Section 7 of the bill.

Section 21 provides that the bill shall take effect July 1, 2024.

IV. Constitutional Issues:

A. Municipality/County Mandates Restrictions:

None.

B. Public Records/Open Meetings Issues:

None.

C. Trust Funds Restrictions:

None.

D. State Tax or Fee Increases:

None.

E. Other Constitutional Issues:

Section 17 of the bill prohibits homeowners' associations, in their governing documents, from disallowing certain types or fuel sources of energy production and appliances that use such fuels in their governing documents. If this provision was to apply retroactively to existing homeowners' association documents, it may raise an issue under the contracts clause of Florida's Constitution.

Under Florida law, statutes are presumed to operate prospectively, not retroactively. In other words, statutes generally apply only to actions that occur on or after the effective date of the legislation, not before the legislation becomes effective.

The Florida Supreme Court has noted that, under the rules of statutory construction, if statutes are to operate retroactively, the Legislature must clearly express such an intent for the statute to be valid.¹⁴⁰ When statutes that are expressly retroactive have been litigated and appealed, the courts have been asked to determine whether the statute applies to cases that were pending at the time the statute went into effect. The conclusion often turns on whether the statute is procedural or substantive.

The Florida Supreme Court has acknowledged that “[t]he distinction between substantive and procedural law is neither simple nor certain.”¹⁴¹ The Court further acknowledged that its previous pronouncements regarding the retroactivity of procedural laws have been less than precise and have been unclear.¹⁴²

Courts, however, have invalidated the retroactive application of a statute if the statute impairs vested rights, creates new obligations, or imposes new penalties.¹⁴³ Still, in other cases, the courts have permitted statutes to be applied retroactively if they do not create new, or take away, vested rights, but only operate to further a remedy or confirm rights that already exist.¹⁴⁴

Florida's contracts clause states that “no bill of attainder, ex post facto law or law impairing the obligation of contracts shall be passed.”¹⁴⁵ Regarding the impairment of an existing contract by the retroactive application of a statute, the Florida Supreme Court recently said:

“[V]irtually no degree of contract impairment is tolerable.” However, we also recognized that the holding that “virtually” no impairment is tolerable

¹⁴⁰ *Walker & LaBerge, Inc., v. Halligan*, 344 So. 2d 239 (Fla. 1977).

¹⁴¹ *Love v. State*, 286 So. 3d 177, 183 (Fla. 2019) quoting *Caple v. Tuttle's Design-Build, Inc.*, 753 So. 2d 49, 53 (Fla. 2000).

¹⁴² *Love*, *supra* note 141 at 184.

¹⁴³ *R.A.M. of South Florida, Inc. v. WCI Communities, Inc.*, 869 So. 2d 1210 (Fla 2004).

¹⁴⁴ *Ziccardi v. Strother*, 570 So. 2d 1319 (Fla. 1990).

¹⁴⁵ FLA. CONST. art. I, s. 10.

“necessarily implies that some impairment is tolerable.” The question thus becomes how much impairment is tolerable and how to determine that amount. To answer that question, in *Pomponio* we proposed a balancing test that “allow[ed] the court to consider the actual effect of the provision on the contract and to balance a party’s interest in not having the contract impaired against the State’s source of authority and the evil sought to be remedied.” “[T]his becomes a balancing process to determine whether the nature and extent of the impairment is constitutionally tolerable in light of the importance of the State’s objective, or whether it unreasonably intrudes into the parties’ bargain to a degree greater than is necessary to achieve that objective.”

An impairment may be constitutional if it is reasonable and necessary to serve an important public purpose. However, where the impairment is severe, “[t]he severity of the impairment is said to increase the level of scrutiny to which the legislation will be subjected.” There must be a “significant and legitimate public purpose behind the regulation.”¹⁴⁶

V. Fiscal Impact Statement:

A. Tax/Fee Issues:

None.

B. Private Sector Impact:

The following provisions of the bill may have a fiscal impact on the private sector:

- Deleting requirements relating to the Florida Climate-Friendly Preferred Products List may have a negative impact on companies that have products on that list as they may see a reduction in purchases of those products.
- The provision requiring state agencies and political subdivisions to consult a Florida Humane Preferred Products List when procuring certain energy products, may positively financially impact those companies with products on the list. Conversely, companies with products not on the list may be negatively financially impacted.
- The provisions reducing the applicability of the Natural Gas Transmission Pipeline Siting Act will likely reduce regulatory costs for pipeline projects.

C. Government Sector Impact:

The bill may have an indeterminate negative fiscal impact on state government expenditures because it imposes new requirements for specified state agencies, which may require the expenditure of resources. The directives of the bill likely expands the responsibilities of the following state agencies:

- Department of Management Services – due to the development of a Florida Humane Preferred Energy Products List;

¹⁴⁶ *Searcy, Denney, Scarola, Barnhart & Shipley, etc. v. State*, 209 So. 3d 1181, 1192 (Fla. 2017) (internal citations omitted for clarity).

- The Public Service Commission (PSC) – due to the assessment of the security and resiliency of the state’s electric grid and natural gas facilities;
- PSC – due to the study and evaluation of advanced nuclear power technologies;
- The Department of Agriculture and Consumer Services (DACS) – due to revised duties of the DACS to conform to the changes made by the bill and require that the DACS advocate for energy issues consistent with the goals in proposed s. 377.601(2), F.S.;
- The Department of Environmental Protection – required to review all applications for federal wind energy leases in the territorial waters of the United States adjacent to Florida and signify its approval or objection to each application; and
- Florida Department of Transportation – due to the study and evaluation of potential development of hydrogen fueling infrastructure.

Most of the above agencies have not yet provided their analyses of this bill, so it is unknown at this time the extent to which the bill would impact those agencies’ operations. Affected agencies may be able to satisfy all or some of these requirements with existing resources. For example, the DMS may incur additional workload for the development of the Florida Humane Preferred Energy Products Lists; however, according to the DMS, such workload can be absorbed within the current resources of the DMS. The impact of requiring state agencies to purchase certain energy-related items from a new Florida Humane Preferred Energy Products List, as required by the bill, is indeterminate.

The PSC, in its analysis of SB 1548, stated that implementing a similar provision in that bill to Section 19 of this bill (directing the PSC to study and evaluate the technical and economic feasibility of using advanced nuclear power technologies, including small modular reactors) would likely require the PSC to secure outside experts because the “technology is in its infancy, and no such reactors have been put into operation either in Florida or elsewhere.” The PSC provided an estimated cost of such services of \$190,000, based on the inflation-adjusted cost of consultants it has hired for a previous research project.¹⁴⁷ Historically, traditional studies cost approximately \$200,000 to \$300,000.

VI. Technical Deficiencies:

Section 4 of the bill uses the term “electric cooperatives;” however, the terminology used in ch. 366, F.S. to refer to a cooperative organized and existing under the Rural Electric Cooperative Law is “rural electric cooperative.”

VII. Related Issues:

Section 3 of the bill uses the term “development district,” but does not define this term. It is unclear if this is intended to mean a community development district or another entity. The sponsor may wish to revise this term or include a definition.

Section 4 of the bill does not define the term “mutual aid agreement” or “pre-event agreement” and these terms are not used elsewhere in ch. 366, F.S. The sponsor may wish to provide a

¹⁴⁷ Florida Public Service Commission, *Bill Analysis for SB 1548*, *supra* note 28.

definition or requirement of what constitutes such an agreement. Also, as described in the Present Situation portion of this analysis, municipal electric utilities and rural electric cooperatives generally enter into a mutual aid network and not individual agreements with other utilities. Section 4 may not contemplate that such agreements would qualify under the requirements.

Section 10 of the bill requires the Department of Environmental Protection to “review all applications for federal wind energy leases in the territorial waters of the United States adjacent to waters of this state and shall signify its approval of or objection to each application.” The section also does not provide on which basis the DEP is to review applications. In addition, under current federal regulations, wind energy leases are generally granted by a competitive bidding process under 30 C.F.R. 585.210-216, managed by the Bureau of Ocean Energy Management (BOEM). There is also a process for non-competitive leases when there is no competitive interest in a proposed area. Under 30 C.F.R. 580.211, state participation is contemplated when identifying areas for consideration to be leased and, once BOEM issues a proposed sale notice before an auction sale, an affected state is notified and there is a 60 day comment period.

VIII. Statutes Affected:

This bill substantially amends the following sections of the Florida Statutes: 286.29, 366.032, 366.94, 377.601, 377.6015, 377.703, 220.193, 288.9606, 380.0651, 403.9405, and 720.3075.

This bill creates the following section of the Florida Statutes: 163.3210, 366.042, 366.99, 377.708 and several undesignated sections of law.

This bill repeals the following sections of the Florida Statutes: 377.801, 377.802, 377.803, 377.804, 377.808, 377.809, and 377.816.

IX. Additional Information:

A. Committee Substitute – Statement of Changes:

(Summarizing differences between the Committee Substitute and the prior version of the bill.)

CS by Appropriations Committee on Agriculture, Environment, and General Government on February 20, 2024

The committee substitute:

- Regarding the Florida Humane Preferred Products List, revises the capacity of energy storage devices and energy generation devices that qualify for the provision requirements in the bill.
- Deletes a provision prohibiting the Florida Department of Transportation (FDOT) from assigning or transferring its permitting rights across any transportation right-of-way operated by the FDOT to a third party or governmental entity that does not operate the transportation right-of-way without prior approval of the Legislature.
- Deletes a provision prohibiting the FDOT and local government entities from requiring a utility within a public road operated by the authority to be relocated on behalf of any other third-party or governmental agency project related to a separate public or private road or transportation corridor.

- Deletes a provision requiring the Public Service Commission (PSC) to create targeted storm reserve amounts for public utilities.
- Creates a provision requiring all electric cooperatives and municipal electric utilities to enter into and maintain certain mutual aid agreements and submit an annual attestation to qualify to receive state financial assistance for disaster recovery.
- Deletes a provision authorizing the PSC to establish an experimental mechanism to facilitate energy infrastructure investment.
- Revises a provision permitting the PSC to approve voluntary public utility programs for residential, customer-specific electric vehicle (EV) charging to amend the types of vehicles eligible for the programs and deletes requirements that an EV charging program may not adversely impact ratepayers and that revenue from a program must be credited to ratepayers. The amendment also adds a requirement that ratepayers will not pay to support the recovery of EV charging investments.
- Regarding a provision in the bill revising legislative intent regarding energy resource planning and development policies for Florida, the amendment adds cost-effectiveness. The amendment also deletes “ensuring consumer choice” from the updated energy policy goals and adds “reliability and security” to state policies.
- Deletes a requirement in s. 377.703, F.S., that the Department of Agriculture and Consumer Services to establish goals and strategies for increasing the use of renewable energy.
- Creates a provision prohibiting:
 - The construction, operation, or expansion of an offshore wind energy facility in the state;
 - Construction or operation of wind turbine within 1 mile of the state coastline; and
 - Construction or operation of a wind turbine in state waters or submerged lands.
- Creates a provision requiring the Department of Environmental Protection (DEP) to review federal wind energy lease applications and signify DEP’s approval or objection.
- Deletes a provision in the bill directing the Florida Department of Commerce to expand eligibility for the Low-Income Energy Assistance Program (LIHEAP) to persons in certain federal disability programs and develop a process for automated LIHEAP payments to home energy suppliers.
- Extends due dates for certain reports that the bill requires the PSC and DOT to submit.
- Creates new consultation requirements for provisions in the bill requiring the PSC to assess the state’s electric grid and study small modular reactors.
- Makes technical and conforming changes..

CS by Regulated Industries on January 30, 2024:

The committee substitute:

- Adds a provision prohibiting the Florida Department of Transportation (FDOT) from assigning or transferring its permitting rights across any transportation right-of-way operated by the FDOT to a third party or governmental entity that does not operate the transportation right-of-way without prior approval of the Legislature.
- Adds a provision prohibiting the FDOT and local government entities from requiring a utility within a public road operated by the authority to be relocated on behalf of

any other third-party or governmental agency project related to a separate public or private road or transportation corridor.

- Deletes a provision in the bill that created an electric vehicle battery deposit program within the Department of Highway Safety and Motor Vehicles and a related report.
- Deletes a provision in the bill that required the FDOT, when it enters a contract or has entered into a contract or license to allow a vendor to sell motor fuel or charging services along the turnpike system, offer access to potential vendors of other motor vehicle fuels or repowering services along the turnpike system.
- Deletes a provision in the bill that created a requirement that, before a public utility retires an electrical power plant, it must petition the Public Service Commission (PSC) for approval.
- Adds a provision requiring the PSC to create targeted storm reserve amounts for public utilities.
- Adds a provision authorizing the PSC to establish an experimental mechanism to facilitate energy infrastructure investment.
- Regarding a provision in the bill permitting the PSC to approve voluntary public utility programs for residential, customer-specific electric vehicle charging, it revises the applicability date for previously approved programs.
- Adds a provision requiring the PSC to conduct an annual proceeding to determine prudently incurred natural gas facilities relocation costs for cost recovery by natural gas public utilities.
- Adds a provision directing the Florida Department of Commerce (FDC) to expand eligibility for the Low-Income Energy Assistance Program (LIHEAP) to persons in certain federal disability programs.
- Adds a provision directing the FDC to develop a process for automated LIHEAP payments to home energy suppliers.
- Deletes a provision that directs the PSC to ensure technologies that allow businesses and consumers to use electrical energy for their own use are used in a way that best maintains the integrity of the state electricity grid. The deleted provision also required the PSC to establish programs and rate mechanisms, and submit a report to the legislature.
- Makes technical and conforming changes.

B. Amendments:

None.