

# WORKGROUP FOR INNOVATIVE SOLAR ENERGY RESOURCES (WISER) MINUTES

April 14, 2021

## Present

Kimberly Newton, Bill DeBusk, Bill Young, Nick Sanzone, John Constantinide, Bruce Lindsay, Dr. Jim Fenton (UCF's FSEC), Latoya Hinson (FPL), Jenn Schaffer (Solar Together), Bart Gaetjens (FPL) Lisa Ruckman (Public Participant) and Amanda Elmore (Planning & Development)

## Call to Order

Called to order 5:22 p.m. by John Constantinide, Vice Chair. Nick Sanzone, Chair, joined at 5:31 p.m.

## Determination of Quorum

Quorum was determined

## Approval of March 3, 2021 Minutes

Motion by Bill DeBusk, seconded by John Constantinide to approve the March 3, 2021 minutes. The motion passed unanimously.

## New Business

Dr. Jim Fenton went through his presentation titled Florida Citizens, Cities and Countries Should Take Charge of Their Energy Future. He said efficiency, PV, EV, and battery upgrades are areas they should all look at; energy users want to lower their electric bill. Utilities and energy producers are in the business of selling it; a consumer will never be a producer. Resiliency involves things such as batteries; it increases jobs and keeps wealth at home. To retrofit homes and buildings in the state of Florida, they may need to buy components overseas, but rather they be made in Florida. He explained a chart titled Estimated Florida Energy Consumption in 2018: 4,200 Trillion BTU. In part his chart explained that for natural gas we spend 1.8 billion, 590 million in coal, 239 million in Biomass and 35.7 Billion in Petroleum. Little to none are made in Florida. We use those primary fuels in an enhanced way. Electric Utilities take fossil fuels and solar to make electricity. We take that primary fuel and convert it into useful electrons at only 38% efficiency. Florida spent \$63 billion on energy; 73% of primary energy is wasted.

From the slide titled Driving Sustainable Energy Investment in Florida Communities, he said there isn't a federal government policy on renewable energy; local governments are looking into this. They recognize climate change impacts and are adopting renewable energy targets. The hypothesis at FSEC is that many Florida communities need help identifying and prioritizing cost-effective and timely options. FSEC can play a critical role in identifying research informed options, monitoring and validating. He explained his plot chart of the annual household energy usage in Florida, including that the average customer uses 13,000 kW hours a year. In 1993 to 2003, customer electricity demand went up. Utilities forecasted it would keep going up; it leveled off in 2009. In 2003, Florida gave permission for new nuclear power plants; not needed anymore, existing plants are being upgraded. The 2018 forecast predicted an improvement on efficiency upgrades, the average upgrade across the U.S. is 1%. Most states, through their utilities provide resources that enable a customer to save energy; in Florida there are no funds available for energy efficiency. Florida has the highest residential consumption of electricity in the nation at 54%, the U.S. as a whole is at 38%; 80% to 90% of electricity in Florida is used by buildings. In 75 years, half of the buildings that exist now, will still exist; it will employ people locally to fix them up. He explained his slide titled Cost-Effective Retrofits of Existing Florida Homes which included a Home Energy Rating Score graph. He explained that minimum code is the worst to build by law. Many people with homes that are high on the index cannot afford the improvements; government needs to find the finances.

He explained his slide titled Rooftop Solar Has Lowest Cost, which shows Solar's fast drop in price. Utilities can always make solar cheaper than one can on a residential building. In 2020 rooftop solar

is less expensive out of the wall and less expensive than utility solar transmitted and distributed to the customer through the wall. In 2030, rooftop solar is half the cost of utility solar distributed to the customer. He explained his chart of electricity from solar in the U.S. California Utilities has the most solar, their rooftop solar beats every state's utility. Florida is moving up fast, the utilities will probably beat California. His next chart showed the percent of solar electricity for states in ranking order. Florida is at 2.3% and California is at 22.2%, 45% being rooftop. His chart titled Monthly Savings for NET Zero Existing Average Florida Residence, showed the monthly savings the average resident would have if they added 9.5 kW of PV to their roof.

His next chart was titled BloombergNEF New Energy Outlook 2020 Economic Transition Scenario. In part, he said it shows that by 2050 we will move to 69% renewables with 24% being fossil fuels. He explained his chart titled Emissions in the Economic Transition Scenario by Sector, and a Range of Carbon Budgets. He said that if our goal is to meet climate goals, we have to do much better. His next slide of Bloomberg's New Energy Finances Forecasting, he said explains how we could get there. The chart shows the electricity demand, NEO climate scenario for 2015 to 2050 electrification. Regarding his next slide on clean energy jobs, he said energy efficiency continues to lead the clean energy sector in total number of jobs. When there are 1000 people installing solar, 80 of those are working for utilities; the others are on a roof as every roof job is custom. In Florida the total clean energy jobs are twice as that of agricultural jobs and three to one for fossil fuel jobs.

The next few slides illustrated how FSEC can help with municipal building energy audits, solar feasibility studies, energy-efficient affordable housing, energy resiliency, STEM energy education, workforce development, model codes and standard development. He said they have conducted municipal building energy assessments for several local governments which identified opportunities for increased energy efficiency. Solar isn't needed on the roof of an energy efficient building; solar may be cheaper than doing efficiency things. Batteries are very expensive; the smallest that will get the job done is best. Efficiency measures should always be done; some will be cost effective today and others will be in the future. He recommended doing a few buildings well rather than a little bit on many buildings. Once efficiency opportunities are identified, they can provide feasibility analysis for solar energy to offset utility electric consumption. For residents, the calculation is easy as there's a fixed energy charge. Most bills for County buildings have demand charges and different rate structures. The goal may be to lower the peak demand, but it depends on when that occurs. If the sun isn't shining, adding more solar won't lower the peak demand; that may be where storage comes into play. Making buildings more energy efficient will work for all those things. He said low income and underserved populations are most vulnerable to energy disruptions and energy price increases; providing energy efficient residences is paramount to community resiliency and sustainability. Local government can enable this through weatherization assistance, property assess clean energy, community development block grants, state house finance programs and affordable housing policies. In 2008, with the support of leadership of the state energy office and most electric utilities Florida, they were able to install solar energy systems with battery backup on over 100 schools which would run a few classrooms. He said STEM energy education includes K-12 activities, some in concert with utilities. He said workforce development includes NACEP certification training for solar installers, workshops associated with government, building code officials and training for people to do home ratings. He said his FSEC staff serves on committees associated with building codes and standards; Florida being one of the leaders in increasing its efficiency in building codes.

His slide titled Vision for Florida suggests spending little to no funds on imported primary fuels. To achieve 100% renewables, he listed building energy efficiency improvements, utility and rooftop solar, energy storage, smart-charging electric vehicles (V2G), and demand response. To achieve resiliency, both utilities and customers must be empowered to achieve 100% renewables.

John Constantinide referred to the slide regarding residential cost of solar compared to the utility cost of solar, where bills are mentioned. He asked Dr. Fenton if he incorporated capital cost, because payback in part is attributed to capital cost. Dr. Fenton said yes, he uses the levelized cost of electricity, you can understand what is paid out of the wall, for a sense of per kW hour. Later he uses monthly savings. To calculate the levelized cost, he takes the lifetime and cost of the powerplant over 20 years and calculates the amount of electricity anticipated over the same years; take the total amount of electricity divided by the total amount of dollars. John Constantinide asked if FSEC had provided energy management services to municipalities before. Dr. Fenton answered no, they can offer audits, recommendations and data, help with research activities and bring in help from the DOE. John Constantinide clarified optimization rather than utility management. Dr. Fenton said having done an audit, they'd be able to provide the most cost-effective ways to spend. Bill DeBusk said he saw that the cost of solar on roof went down from 2020 to 2030, but the cost of utilities from solar went up. Dr. Fenton said no, their cost of solar went down but the cost of their transmission distribution went up. Renewable energies are getting cheaper every year; utilities do a good job with it, including promoting electric vehicles.

Nick Sanzone said he said he wanted to make sure the tax credits information was solid. He asked if there were credits for the County. Dr. Fenton said the County isn't eligible for the income tax credit; the person that installs the solar gets the income tax credit and would lease to the County on a monthly basis. The County wouldn't make as much profit, but wouldn't have as much expense up front and they may split the tax credit. Nick Sanzone asked where they were with the efficiency vs. cost curve for battery technology. Dr. Fenton replied that if you want to get a battery, buy an electric car. To use a battery for energy storage, requires an audit on the building for efficiency and demand charges. Nick Sanzone said it sounds like he is recommending using electric vehicles, and in an emergency, using them as vehicle to grids. Dr. Fenton said Palm Beach has done that with school busses; City governments should be talking to school districts. He said we have approximately 18,000 school busses in Florida; it would be cost effective get rid of them in the next five to six years. They aren't used during the Summer, utilities could use them for mobile energy storage, moving them to places without power that has solar. Fleet transition will save money today on lifetime cost.

Latoya Hinson said she is an Energy Services Consultant with FP&L, joined by Rob Wisley, Jenn Shaffer, Danny Wong, and Bart Gaetjens. She won't be discussing rates, the client advisor to the Brevard County account would be handling that in a separate session. Her presentation was shared on screen and will give an overview of Solar Together and Guaranteed Energy Services Contract. She said Brevard is an FPL customer; they are made up of a conglomerate of Nextera Energy Resources, FPL the utility company and Gulf Power. They are the nations third largest electricity utility with over 26 years of experience in the energy services business. She said they have never missed a savings guarantee; over 60% of their customers repeat business with them.

Jenn Shaffer said FPL launched Solar Together last year. They serve 35 counties, have 9,000 employees, produce 27,000 MW of generation, have 5 million customers, service half of Florida and recently acquired Gulf Power. It's a community solar program that leverages their ability to build large

scale solar energy centers in FPL's service territory; they have 37 operating sites and 2.5 GW of solar energy. Slide pictures represented 74.5 MW solar energy centers, each generates enough power for 500,000 homes, covers 500 acres and has about 330,000 solar panels each. Brevard County has three facilities, Palm Bay, Kennedy and Barefoot Bay and is also home to a 2010 facility. She said community solar programs allow customers to come together and purchase a piece of a solar energy facility. They have taken the model of community solar that exists in many areas across the country and bring it to Florida in a way that is structured to work in our unique regulated environment.

She said the program offers convenience, flexibility and savings for all customers including County entities, universities, hospitals, home owners and renters. It allows subscriptions for a fixed fee to a share of a large-scale solar energy center and bill credits associated with actual solar generation. They estimate a payback around year seven with no upfront costs, no long-term contract and the subscription is transferable. There are no maintenance, operation or insurance costs. She explained a slide showing a 5-kW subscription example illustrating that a 5 kW subscription costs \$6.76 per kW, \$33.80 monthly, that 5kW with typical weather would produce 950 kWh solar energy, crediting an electric bill at a rate of 3.4 cents, \$32.34 monthly. In the example the \$33.80 is a fixed monthly cost, credit is paid based on the amount of solar produced in a month and the 3.4 cents will grow a little every year allowing the subscription credit to grow with it. She shared a bar graph showing the estimated bill impact. She reminded that the sun has to shine for solar to produce. The County subscribes to 26 MW, approximately 85% to 95% of electricity usage; electing to retire the renewable associated energy certificates in order to claim that portion of electricity is from a renewable source.

Latoya Hinson shared a slide that illustrated O&M costs and savings over time. FPL has a group dedicated to administrating utility energy saving contracts. Specific to Florida, there's a contract that is authorized under Florida Statute 489.145 which reads, "The Legislature finds that investment in energy, water, and wastewater efficiency and conservation measures in agency facilities can reduce the amount of energy and water consumed and wastewater produced and produce immediate long-term savings". The statute provides state, municipal, and educational agencies a mechanism to implement energy related technologies with a mix of funding options to include the savings realized from installed measures. She shared a diagram that showed the typical conservation measures they do in their audits and assessments including solar and renewables, thermal storage, H-VAC lighting chillers and water conservation. It shows what is included in authorized slated measures that can be implemented under the statute. She said they recommend a mix of measures for any project which allow lowering energy consumption before or in parallel to applying renewable technologies. Combining long and short-term paybacks results in cost effective projects. She shared a chart that illustrated short term and long-term paybacks. Bundling ECMs with a variety of paybacks delivers the most cost-effective project that could fit the required time and budget goals. She shared a chart that listed a variety of customers that they work with; currently they're working on a project at four campuses of Eastern Florida College. She said their scope of services provides everything needed to implement a turn key energy savings project, including, design, engineering, construction, planning, consulting, training, measuring, marketing and public communication.

Amanda Elmore asked Latoya Hinson that the presentation be sent for public record and confirmed that the footer, proprietary and confidential, was not in effect for this purpose.

John Constantinide asked, regarding the County's subscription to the 26 MW, if it creates a specific rate, are they going to be aggregated with the Solar Together program, being a large entity with much

invested in the program. Jenn Schaffer replied, it works the same regardless of subscription size. Each metered account will be enrolled in the program, each given a portion of the 26MW subscription, each will be charged for the subscription and receive credits. There's not a different electricity rate, the program is an add on, which allows you to see the cost and benefit of the program as individual line items; a kilowatt hour credit would change the usage.

John Constantinide asked, regarding the performance contracts package, if design, construction, measurement and verification could be done without the audits and site walk throughs. Latoya Hinson said the audit would be a part in order to assess what the true savings would be. John Constantinide said in a typical audit, an energy conservation measure would be identified, and asked if another entity such as the County itself conducted the audit to identify measures, but doesn't have the capital, could they have another entity such as utilities complete them. Latoya Hinson yes, they will work with the customer, previous research is considered. It's important to do their own analysis for accuracy.

Bill DeBusk asked what causes the monthly credit to go up over time. Jenn Schaffer answered that part of the program as approved by the commission, established the credit rate and escalation factor. Underlying the credit rate is an estimate of avoided fuel costs; as more solar is put on the system, they use less fossil fuels which is represented in that cost.

John Constantinide said the avoided fuel costs are higher than the depreciation of the solar equipment, maintenance costs and any depreciation; the value of equipment goes down over time. He asked if the fuel costs are that high to overcome that. Jenn Schaffer replied that the cost of the solar they are building, O&M and depreciation, is being recovered through the \$6.76 subscription charge, it goes down over time due to levelized cost of capital investment. To clarify, John Constantinide said the fuel costs are there, but the subscription also overcomes that cost. Jenn Schaffer said initially there's a cost to be in the program and over time, the credit will grow to offset the cost. Its not much different than if you had done your own rooftop; having a big capital cost upfront, to save money over time.

Bruce Lindsay said Brevard Schools looked at the program and thought the pricing was inappropriate. The 5-kW example is residential and they are all commercial with significantly lower rates, a discount of 13%. They couldn't see how to pay 3 to 5% more just to say they are green. He said he asked FPL to look at commercial rates, as this program isn't designed for municipalities and school districts. Bruce Lindsey said Solar Together is a great program but needs to be adjusted for commercial. He said regarding performance contracting, you can get very low interest loans for long times and pay for things that don't make a three-year payback. He asked, for work with counties, what were the interest rates and loan lengths. Latoya Hinson answered that they are working with counties and municipalities across Florida. Each financial situation is different; she said Rob could speak to the different interest rates, she thinks it is 2 to 3%. Bruce Lindsay said he hoped to hear about their program on biodiesel shared with municipalities. Latoya said she isn't familiar with it but could follow up with that information. John Constantinide said a follow up will be to look at bio-diesel.

Nick Sanzone asked if they could talk with FPL regarding commercial or County rates. Latoya Hinson said yes, they are waiting approval from the Public Service Commission; they are holding several meetings with the County to see what it may look like. Nick Sanzone asked to confirm that Brevard County is involved in the 2020 Solar Together program. Jenn Schaffer said yes, they preregistered in January 2019, for 26 MW. Nick Sanzone asked if there were plans to release another call for the program as it is full. Jenn Schaffer said yes, the program as approved by the Commission is 25%

residential and 75% commercial & government industrial accounts; the commercial and government i accounts are full. They're evaluating when a second phase can be brought to the Commission for approval. Nick Sanzone said the farms built are predominately on land and asked if there's been discussion about floating solar as part of the program expansion. Jenn Schaffer replied that they have a floating solar installation on a Miami airport lake; they are testing that technology and researching its viability on a larger scale. On water, a different set of maintenance criteria is considered. She said if they can find a way to make it work, will save customers money, and continue to provide affordable clean energy, they will pursue it. Nick Sanzone said, he supports floating solar, the County has many lakes and ponds and there might be a potential for partnership.

Dr. Fenton asked, if a commercial customer purchased enough solar to get their energy bill down to zero, what happened to their demand charges. Jenn Schaffer said the program's design would require a subscription of more than 50 times what is needed to take it to zero. It's meant to save money, not eliminate consumption; you can only subscribe to what your energy use is.

Nick Sanzone asked if there was a potential for assisting with the smart infrastructure to reduce the demand charges. John Constantinide said the best way is through battery storage remote control. FPL used to have a program that is being phased out, the CIOC, a load control program, an agreement where FPL can request an entity to reduce load from the grid and in exchange, provide a specific rate. Bart Gaetjens said it had been a closed rate for a decade or two. They still have the load control program, it's a commercial industrial load control that had been a closed rate. John Constantinide asked if the load control program was offered to any entity. Bart Gaetjens replied they have load control programs for air conditioners and pool pumps. John Constatinide said that is one method that would assist with demand charges. The other is battery storage or thermal storage which works with refrigeration and air conditioning. For air conditioning, you accumulate thermal storage with an ice container when rates are low and use it in the day when they're higher, reducing load from the grid but still maintaining the needed air conditioning load. Alternatively, battery storage to reduce electric consumption could be used; large batteries would be needed depending on the load, maybe in residential settings. That would reduce load for a certain amount of time, this depending on a buildings load, so an audit should be done. Measures can be a part of a performance contract. For instance, FPL energy services may provide that and rebates because it's in their interest to offset that load, to not need a larger infrastructure and it lengthens the integrity and life of the infrastructure. Load control from an electrification standpoint is very important. Brevard Public Schools had done thermal storage as have other entities; batteries will be another method of controlling that load. Bart Gaetjens clarified that the schools and others doing thermal storage, are on the time of use rate.

Bruce Lindsay said Brevard Schools has over 20 ice plants; its an effective way to control demand. They can do that because they have tight occupancy times. They should look at FPLs seasonal demand time of use rate; the discount involves shutting air-conditioning down at 3 p.m. all summer long. Turning it on would result in a monthly demand charge. He said a question for the County would be, could they set their times like the schools do from 6 a.m. to 3 p.m. during the Summer months. It's a 10% reduction in demand charge. Nick Sanzone said they should mention that in their report. John Constatinide said, in an occupied building where ventilation, not air conditioning, is required by code, it may not be possible. Reducing climate control by one hour in areas such as warehouses, may be a way to pursue savings. They should look at building usage and occupancy.

Bill DeBusk asked if Brevard County's contract for 26 MW covers all of Brevard County's needs. Jenn Schaffer said based on current usage it is between 85% and 95%. John Constantinide said, the fact that capacity is being requested by the County can be a good thing. Capacity doesn't mean there's a strategy or path forward. Interest by the County to get capacity would shift their strategy; instead of starting at ground zero they could start at a more advanced point. He said this is different from the charge given by the County Commission, but as things evolve, the workgroup might evolve the charge. Bill DeBusk said he isn't sure you can ask for more power than you are using.

Lisa Ruckman said she understands that with Solar Together, you decide ahead of time how much the amount will be; it's a fixed amount during the whole time. She asked, if the County makes their buildings more efficient, needing less energy than the initial contract, what happens then. Jenn Schaffer replied that other municipalities and commercial customers are tackling their sustainability initiatives, efficiency being a big part of that. Many retailers opted for a 75% subscription versus higher because they are going to tackle energy efficiency. They will look at annual usage and subscription and if there is an excess of 115%, the subscription could be reduced.

Bart Gaetjens said the Brevard County Commissioners voted five to zero to join the Solar Together program. Nick Sanzone asked if there was an end date to the Solar Together agreement. Jenn Shaeffer responded no, it is a live program as long as there's a tariff. Nick Sanzone asked if there was a potential to renegotiate for more or less power or different rates. Jenn Schaffer said there's no program contract. The County preregistered and committed to being in the program for one billing month. They can exit or decrease the subscription at any time and increase the subscription annually.

Nick Sanzone thanked the presenters and said they will follow up with more questions by email.

### **Old Business**

Bill DeBusk said that Solar Together is great, they probably have as much as they want. Nick Sanzone said what they have is right, all goals are still addressed. They have the opportunity for electric vehicles, an Energy Manager and options for solar. Bill DeBusk said the demand rate is a big deal. John Constantinide said the Energy Manger should focus performance contracts, performance opportunities, energy conservation measures, ways the County can get that payback, demand rates, load control and revolving fund options that in turn pays for the position and staff, the County getting that payback. That allows for keeping the jobs and moving ahead with other projects; with inflation the savings aggregates. They can continue with what they have, refine it and be more aggressive.

Kimberly Newton asked if that opened up room to concentrate on storage in the form of a fleet and weatherization programs. Nick Sanzone said it could be expanded. John Constantinide said integrating the concept of electric fleets with energy storage, is powerful; it could be put under a performance contract. For example, the vehicles would be purchased as electric fleet and energy storage. During the peak times, the electric vehicles can offset power and reduce load, saving money on the peak demand charge. The payback comes through load control measures for those vehicles. For the rest of the time, they charge up and can be used as vehicles. It's a matter of getting to the point where the load control can be increased to eventually use that money to pay for the electric vehicles. Nick Sanzone said they should note that there's a floor; there will always be some peak demand charge. John Constantinide said they key is to look at the savings, which will go toward the payback. It's a creative use of an energy conservation measure to look at a non-facility asset to support a facility; because they are looking at electricity consumption. Bill DeBusk said, all

Volkswagen vehicles will be built with V2X capability. Nick Sanzone said they can give examples of vehicles, but the Energy Manager will do the research and maybe piggyback on other contracts. John Constantinide said it makes sense that FPL does their own audits. The Energy Manager may need to farm out some things to FPL or FSEC; allowing him or her to focus more on what has to be done by the owner. FPL Energy Services looks at contracts, FSEC may look at grant opportunities. The Energy Manager would review those applications, but the heavy lifting could be done by FSEC. That type of staff augmentation could allow for a bigger office without requiring the bodies.

Nick Sanzone said by next meeting they should have their final draft. Bruce Lindsay read on page 22, transitioning vehicles to natural gas is not recommended. At the Port, all cruise ships are being converted to Liquid Natural Gas (LNG). At the Space Center, SpaceX and Blue Origin have developed rocket engines that run on methane. He recommends they don't say anything bad about natural gas. Bill DeBusk said many use it as a means to close the gap between energies. During production and transportation, natural gas weakens the atmosphere. We are close to going full electric with vehicles. Bruce Lindsay said Brevard County is focused on two major industries, cruising and space travel. There will be an LNG plant in Titusville. All County and Port Commissioners are on this 100%; they should endorse that. He said he doesn't want to disparage natural gas; it's a great bridge fuel, much better than what is used currently. Bill DeBusk said, it's controversial, they can't use natural gas forever and get out of the global warming problem. Bruce Lindsay said for zero carbon, that's right; it's better than burning oil or kerosene. He said he doesn't want to paint our Commission into a corner. Nick Sanzone suggested this language; transitioning vehicles to LNG is acknowledged as a path to energy independence and is a stepping stone towards the future they are outlining; there are potential issues and benefits with LNG. Bruce Lindsay said the reason LNG is viable now is because of fracking. The LNG to be used on a cruise is coming out of Elba Island near Savannah. They built a tug to haul a million gallons; it will fuel two cruise ships for a week. They are talking about using LNG for all maritime activity; immediately for car carriers through the gulf. He said Florida East Coast Railroad converted 24 locomotives to burn 80% natural gas; shipping LNG containers to Jamaica and Cayman for power generation. Nick Sanzone asked if the impact of an LNG spill is less than a crude oil spill. John Constantinide said natural gas is the cleanest burning fuel; it does have a foot print, but much less. Nick Sanzone said they should mention the way it's harvested, as there's an impact and asked about the impact from fracking. Bruce Lindsay said most fracking is in the Appalachians and Texas. Nick Sanzone said they should be listed as stepping stones, outlining the impact. Bill DeBusk said the whole section could be reduced to the last paragraph as electric vehicles are on their doorstep now. Kimberly Newton said the acceleration rate of the tech is catching up and intervening before these other phases need to be implemented. John Constantinide said natural gas is most effective with shipping and transport not County infrastructure or citizen services; natural gas resources used for transport was an economic decision; the County's function is different and can easily be addressed by electrification. He suggests they say natural gas is good in some areas but the County has an opportunity to go straight in because the technology is already there.

Bill Young said he does solar and alternative fuels such as natural gas and propane. He said he agrees with Bruce in that there are some vehicles that haven't been proven technologically advanced to be electric yet, may be 10 or 20 years away from it. If it will take that long, there needs to be something in between. All technologies have their issues. He supports mentioning natural gas is viable for the applications that fit it until technologies are advanced. John Constantinide said it may be up to the Energy Manager to look at the options related to electric vehicles and load control; and where it may be cheaper to use natural gas for now. Nick Sanzone said they could edit these things

into a smaller section, outlining alternative fuels and what's happening regionally and offer that more information is available in an appendix or website. Bill DeBusk said he didn't include hydro technology and wind because neither are practical for Florida. Kimberly Newton said they are examples of innovations that are catching up. Nick Sanzone suggested it be mentioned in an appendix. Bruce Lindsay said this is a tool for them to use with constituents and for educating the Commissioners. Kimberly Newton asked if they were requesting that there's a commitment made to a transition goal date. John Constantinide said, they may need to tell them to commit to certain benchmarks. Kimberly Newton said there are several bills sitting in legislation that are transition goals for the state; for them not to mention that is negligent. Bill DeBusk said it is mentioned; page 12. Bruce Lindsay said that Solar Together is a 4.1% increase in cost, which should be mentioned. Bill DeBusk said the costs are in the document. John Constantinide asked about including his spreadsheet on solar calculations in case the County decides to build their own infrastructure. Bill DeBusk said it's included. Kimberly Newton asked who would be hiring the Energy Manger. Amanda Elmore said, if its going to be in the Public Works Department, that Department Director would be responsible. They would make the Department recommendation; the decision would be that of the Commission or County Manager. John Constantinide asked if the length of the report was better or do they need to reduce it more. Amanda Elmore suggested reducing it by half. Bill Young questioned the solar industry not being listed as a partner under goal two. Nick Sanzone said that the list should be added to and put in the appendix.

### **Topics and Resources for Next Meeting**

Amanda Elmore said she sent the WISER Board two emails that were shared by Bruce. She asked if a quorum of four is appropriate for in person meetings.

Motion by John Constantinide, seconded by Bill DeBusk to reduce quorum to three. The motion passed unanimously.

Amanda Elmore confirmed with the Board members that the next meeting will be on May 5, 2021; it will be in person. Nick Sanzone said that each Board member should email their document changes to Amanda by April 30, 2021. She will get them to the Board members Monday morning after.

John Constantinide said Bruce sent an email about WISER supporting Florida Tech for a U.S. Department of Energy (DOE) Industrial Assessment Center grant. He said that the DOE has an Industrial Assessment Center that provide grants to universities for free energy audits for industrial and high-end commercial companies They identify energy conservation measures for owners to pursue. They are expanding it to commercial entities. Their role would be to vouch for them and pass their information to interested entities. He asked Amanda who would sign the letter if they were to approve having WISER support Florida Tech pursuing a U.S. DOE grant. Amanda Elmore replied that it's beyond their scope; not one of the three items they were charged with doing. Nick Sanzone said they could recommend that in the future, the County allow it. Amanda Elmore said, if they are going to recommend that the County continues the WISER Board, they could ask to include their scope be expanded. Kimberly Newton said that is under goal two; community outreach, education and accessibility. Amanda Elmore said the other email from Bruce regarding L3 sustainability and hosting, is outside of their scope right now.

### **General Public Comment**

No public comment

**Final Comments**

Bill Young said he recommends that the Energy Manger position not be under the finance department as that could cripple engineering creativity.

**Adjournment**

Motion by John Constantinide, seconded by Kimberly Newton to adjourn the meeting at 7:57 p.m.  
The motion passed unanimously.