Local Roots, Global Reach

ISLE OF WIGHT COUNTY, VIRGINIA

ENERGY TASK FORCE

FINAL REPORT TO THE ISLE OF WIGHT COUNTY BOARD OF SUPERVISORS

AUGUST 1, 2024

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I. Background

In November 2022, the Isle of Wight County Planning Commission recommended supervisors form an Energy Task Force (ETF) to review Isle of Wight's existing energy infrastructure, remaining capacity in high-voltage transmission lines, future energy generation projects and emerging energy generation technologies. The Board of Supervisors voted in February 2023 to create the task force and decided on a seven-member body consisting of one representative from each of the county's five voting districts and two at-large members. The at-large slots would eventually be filled by a representative from the Windsor and Smithfield town councils. No representative was appointed from District 5 for the duration of the ETF. (Appendix A)

The ETF held its inaugural meeting on June 5, 2023, and established a meeting schedule where the group would meet on the second Monday of each month at 4:00pm. Meetings were held in the Board of Supervisors' meeting room at the Isle of Wight County Courthouse Complex. (Appendix B) Typically, the ETF welcomed presentations from various energy-related organizations during the first hour of the meeting. The second hour was reserved for discussion and/or work of the ETF. (Appendix C)

In early meetings, the ETF designated a chair and vice chair, Lynn Briggs and Thomas DiStefano, respectively. The group also drafted a mission statement and goals to focus the work of the committee. The mission states: The Energy Task Force (ETF) will assess the strengths, weaknesses, opportunities, and vulnerabilities of the county's energy planning to date and provide recommendations to enhance sustainability, reliability, and economic growth. (Appendix D) ETF goals include:

1. The ETF will concentrate on gaining information from knowledgeable sources on existing energy infrastructure capacity, current and emerging energy generation and storage technologies, strategies and programs underway by energy providers and diversification strategies for traditional and renewable energy relevant to local government purview, regulation and influence.
2. The ETF will provide periodic progress reviews to the Board of Supervisors to ensure the ETF is meeting the Board's intent.
3. The ETF will make a comprehensive set of recommendations to the Board of Supervisors in June 2024 or as directed by the Board. Examples of possible recommendations include:
    a. develop energy-related amendments to the County's Comprehensive Plan and additional areas for inclusion in the county's Zoning Ordinance
    b. identify the emergence of future energy sources with potential job creation and other economic development enhancements.

c. assess the complexity and rapidity of change in the energy environment and make a recommendation to the Board of Supervisors on the necessity for an enduring advisory organization.

The ETF operationalized the goals through the creation of five specific deliverables:

1. Identify energy-related gaps in the County's Comprehensive Plan and additional areas for inclusion in the County's Zoning Ordinance.
2. Recognize opportunities for leveraging increased shares of job creation and economic development from emerging energy sources for the County.
3. Define the complexity and rapidity of change in the energy environment for the County.
4. Provide an assessment on the need for an advisory organization or other resources for ongoing technical analysis.
5. Recommend methods for the County to educate the public, including the business community, and gain input on energy-related matters.

The ETF applied a SWOT analysis (Strengths, Weaknesses, Opportunities, Threats) to each deliverable and presented the findings in the form of a quad chart. (Appendix E)

From the SWOT analysis, the task force identified overall strengths and weaknesses related to energy growth in Isle of Wight County. Using the strengths and weaknesses, the ETF compiled specific priorities and recommendations for the Board of Supervisors regarding energy expansion in the county.

II. Strengths and Weaknesses

Strengths

Isle of Wight County is uniquely positioned with its significant energy supply lines, including multiple electric transmission lines and the largest natural gas pipeline in the Hampton Roads area. These lines, while not guaranteeing direct access, present potential opportunities for energy growth through significant private investment. The county's skilled workforce, drawn by our proximity to naval installations, Surry Nuclear Power Plant, and multiple nuclear-certified shipyards, is a valuable asset for the energy sector. Isle of Wight's investment in career and technical education at local high schools

is also nurturing a generation of 'homegrown' energy sector workers, further bolstering potential for energy expansion.

Additionally, Isle of Wight County recognizes the importance of energy to the future of the economy. The creation of an Energy Task Force acknowledges this importance and is novel among other local governments. The Virginia Clean Economy Act (VCEA) is creating incentives to diversify energy production and, in some cases, mandating aspects of energy policy. It is wise for the County to proactively manage its destiny rather than having it dictated by development and state-level edicts. While the public does not overtly demonstrate an awareness of general energy policy, citizens are quick to show an interest when the positive or negative impacts of county-level energy decisions are made obvious to them.

Weaknesses

When the first solar projects were introduced to Isle of Wight County, the Planning Commission and Board of Supervisors were not prepared for the nuances of energy projects, at least from an ordinance perspective. While the County was wise to implement initial ordinance measures to manage solar growth, revisiting those ordinances is imperative given the maturity of awareness and knowledge the county now has. The ETF specifically recommends the county ensure that its decommissioning ordinances and bond requirements are still sufficient. The ETF has also discovered that modeling energy production growth capacity is difficult due to proprietary protections on available transmission line capacity. Therefore, establishing goals associated with particular types of energy production in the County is not advised. Lastly, current solar ordinances are effective at managing utility-scale solar but restrict community-level solar. Community-level solar energy is likely to be more acceptable and strike a better balance between the general population's opinions on solar energy and individual landowner rights. The ETF therefore recommends the County adding less restrictive “community scale” considerations to the ordinance.

The ETF predicts battery storage will be the next wave of energy projects to reach the County. This statement is based on presentations from experts and research by members of the ETF. A thoughtful and safe investment in battery storage will be a positive for the County as battery storage will dramatically increase the efficiency of solar energy and reduce the overall acreage requirements of future solar projects. Regrettably, it seems the current market will not incentivize retrofitting battery storage into solar projects already in production. The County should consider this situation when approving future solar projects that do not have plans or the capability to add battery storage efficiencies in the future. Battery storage is also an effective means to maximize current transmission line infrastructure.

While the ETF generally supports battery storage, the County's current ordinances and emergency management procedures do not specifically nor adequately address the particulars of battery storage. The common idea of allowing an electrical generation or storage facility to "burn itself out" may seem reasonable in theory, but the idea of a battery facility being allowed to burn for days will almost certainly be unacceptable to county residents if ever executed in practice. Therefore, it is critical that strict ordinances are in place before proposed battery storage developments come calling to Isle of Wight. The cost involved in these preventative measures may not be popular with some developers, but it will be in the best long-term interest of the County.

The task force considered other forms of energy generation, such as hydroelectric, wind, natural gas, and small modular nuclear reactors (SMR). Geographic and climate factors make Isle of Wight uncompetitive for hydroelectric and wind power. Our proximity to the area's largest natural gas pipeline would seem to favor peak-loading natural gas plants. However, Hampton Roads is the end of the pipeline, which creates restrictions on natural gas growth. Also, Virginia's policies over the past ten years have mostly tilted against non-renewable energy production, which makes natural gas investment risky for private investors. Governor Youngkin and other state leaders have expressed an interest in SMR technology, but existing regulations and costs will continue to create a high initial barrier to entry. Existing regulations were developed to govern traditional nuclear power generation activities, such as a Surry Nuclear Power Plant. Federal government efforts to tailor regulations for SMR power generation have not yet resulted in a regulatory environment necessary to promote near-term deployment within our county. The ETF assesses the most likely initial locations to be co-located with existing nuclear power infrastructures, such as Surry and North Anna nuclear power plants. However, Isle of Wight County's proximity to Surry may provide indirect opportunities, such as supporting industry or workforce housing. Additionally, if ongoing federal regulation studies result in reduced regulatory constraints, Isle of Wight has many of the characteristics, such as transmission capability and access to water, necessary for SMR deployment and the ETF suggests pursuing SMR energy production.

III. Priorities and Recommendations

Comprehensive Plan

The County is moving forward with reviewing and updating the current Comprehensive Plan. This provides Isle of Wight an opportunity to address future energy needs and growth as part of the process. Specifically, the ETF recommends the following actions occur in conjunction with the Comprehensive Plan update:

1. Visually depict current utilities across the county (large transmission lines, natural gas pipelines, water/sewer lines, etc.) as well as wetlands and other impediments to development. These graphics would show how utilities drive residential, commercial, and industrial development and help inform where future utility development is best suited.
2. Investigate the interest and demand for electric vehicle charging stations in new construction (for example, housing developments, parking lots, and gas stations). The ETF does not have a specific position on the necessity of electric vehicles but acknowledges their increasing numbers and the influence of state and federal legislation to increase infrastructure to support electric vehicles.

<u>Ordinance Considerations</u>

The ETF acknowledges the critical role effective ordinances play in managing economic development and protecting the well-being of citizens. Although the ETF was not chartered to draft specific ordinances, it is within the group's responsibilities to make recommendations where ordinances are lacking or should be revised.

1. The County should immediately develop ordinances to regulate the construction, operation, emergency management planning, and decommissioning of energy storage capabilities and facilities. As previously mentioned, the ETF believes energy storage will be the next type of energy projects proposed to the County for development. Being proactive now, before any projects are proposed, will better position Isle of Wight to educate citizens on energy storage, acquire community input on ordinances, and provide energy storage developers with clear standards for their projects.
2. The County should revisit its solar energy ordinances and consider the following:
    a. Are the decommissioning provisions strong enough to ensure the land can be returned to its original use and the surety bonds will cover the cost? This should be reviewed regularly as the solar industry learns more about decommissioning facilities over time.
    b. There is a potential need to expand the solar ordinances to differentiate between utility-scale solar, community-scale solar, and microgrids. The current ordinances only cover utility-scale solar. Community-scale solar and microgrids may provide additional solar opportunities and empower property rights without some of the controversial issues the county has witnessed under utility solar. Additionally, community-scale solar and microgrids will enable solar capacity in areas of the county that are currently not feasible for utility-scale solar due to distance from or capacity of large transmission lines. One item of concern is ensuring community-scale solar ordinances do not become a way around utility-scale solar

constraints. Therefore, the distinctions between the two must be more specific than size or energy output alone.

Other Energy Storage Considerations

Energy storage is an emerging technology that will significantly increase the viability of solar energy production. The biggest drawbacks for solar energy are its less than 30% efficiency, high land use to megawatt (MW) ratio compared to other energy-producing methods, and wasted energy when the grid cannot handle the amount of energy generated during peak production. Energy storage addresses and improves upon each of those issues. However, it was disheartening to learn from the experts who presented to the ETF that retrofitting current solar facilities with energy storage is unlikely because it is not economically viable.

Emergency management is an issue that needs careful consideration regarding energy storage. The batteries involved in energy storage present considerably more risk than solar panels and, therefore, require separate emergency management planning. Electric discharge from a battery in a casualty scenario is extremely dangerous considering the amount of heat concentrated in the battery and the potential release of toxins in the case of a fire. The best way to mitigate these risks is through the initial design of the energy storage facility by incorporating safeguards and physical separation requirements that are dictated through strong ordinances and site plan reviews. Once an emergency has occurred, ensuring county emergency response personnel have the proper equipment, training, and procedures will be critical to limiting the spread of the casualty to other batteries and keeping first responders and the public safe. Due to the dangers of fighting a battery fire, the general emergency management response is to allow the fire to burn itself out. While this seems sufficient in theory, in practice, it will likely have severe consequences with respect to public response. Therefore, citizens must be educated on emergency response and kept informed throughout any response scenario, to include accurate and timely air quality analysis.

Sustaining Energy Expertise

Over the past year, the ETF received a wealth of information from industry experts regarding challenges and opportunities related to the future of energy in Isle of Wight. The ETF discovered a common theme throughout the numerous resources provided to the group: the energy industry is in a state of constant and rapid change driven by technology, economics, conservation, and political policy. Given Isle of Wight's size, location, and needs, it is difficult to recommend an easy and economical solution as to how the County can maintain an adequate pulse on the energy industry. However, the ETF offers the following items for consideration:

1. The ETF, in its current form, is not a viable long-term solution for addressing energy needs in Isle Wight. Monthly meetings with industry experts proved beneficial to rapidly increasing the group's knowledge of the energy industry and using that knowledge to identify current challenges and opportunities. The dilemma is how the ETF can convey the knowledge gained into something that can provide the County with timely advice and future planning without encroaching on County staff and Planning Commission responsibilities. It may be more realist to fold the ETF into a smaller subcommittee of the Planning Commission with the purpose of reviewing energy matters on a quarterly to annual basis. This action would require additional thought and better guidance with respect to future expectations. The subcommittee would also have potential limitations in finding citizens with the right level of expertise who are available and willing to serve in such a role.
2. The ETF considered the idea of the County hiring an additional staff member with energy expertise, but decided, at this point, it is unlikely the position would have enough consistent work to justify the cost. Acquiring an energy consultant on retainer was also considered, but the ETF decided County staff would be the appropriate entity to determine the level of need and cost efficiency of a consultant on retainer.
3. The ETF recommends leveraging area resources, such as the Hampton Roads Alliance and other regional entities, when possible.

<u>High Priorities</u>

Isle of Wight County is facing energy challenges from current and pending projects. Many of the concerns revolve around county ordinances mainly geared towards utility scale projects, which to this point have strictly been solar.

The ETF recommends Isle of Wight County address the following items as high priorities:

1. Develop ordinances related to energy storage to prepare for future projects throughout the community.
2. Clean up solar energy ordinances, especially for microgrids and community scale projects, through the use of specialized ordinances.
    - The ETF recommends staff write ordinances with input and review by an energy-related body, such as the ETF or a subcommittee of the Planning Commission.
3. Improve emergency management response to hazardous situations at energy storage facilities.

a. Energy storage facility materials should be known prior to installation and communicated to Emergency Management staff for identification potential hazards and development of a detailed emergency response plan.
b. Emergency Management staff should review the “let it burn” practice with respect to public relations, such as advanced public awareness of the practice and engagement during casualty events.
c. Emergency Management should consider methods to conduct rapid air sampling for developing public health advisories to ensure the safety of citizens. This may require the County to develop air sampling capabilities rather than relying on agencies outside of Isle of Wight.

4. The County should engage with the public to provide factual and unbiased energy-related information to the highest extent possible. In the event biased information is offered to the public, Isle of Wight should consider directing the community to reliable, factual sources that provide a balanced assessment of different types of energy. Ideas for public engagement include:

    a. Surveys: Periodically gather feedback regarding what the public wants to know more about related to county energy production.
    b. Develop a webpage specifically devoted to energy, including approved energy projects, energy projects under review, energy ordinances, and Frequently Asked Questions (FAQ).
    c. Use social media and the county website to share resource links.
    d. Display energy-related informational videos during the closed meeting broadcast and on the county-run PEG channel to reach members of the community.
    e. Share the location of the county’s energy-related web site and resources during public hearings to direct attention to relevant information.
    f. Incorporate energy growth as part of the comprehensive plan development and review process.
    g. Distribute energy-related information at an existing Isle of Wight County booth during the annual County Fair.

Actions to prepare for: long range

1. The ETF found that high energy consumers, such as data centers, have a general opinion that regional weather threats make the Hampton Roads area an undesirable location for operations from a risk perspective. The ETF considers the County to have considerably less risk than more coastal communities in the region and recommends addressing this narrative through economic development channels.

2. With established industries and naval facilities, and vibrant technical education programs in the public schools, Isle of Wight County has the potential for a highly skilled workforce to support energy growth. The County should consider partnering with educational agencies to develop training opportunities for citizens. A built-in workforce would enhance the attractiveness of the county for development of future energy projects.
3. The ETF recommends the County develop a comprehensive map identifying the locations of all utilities available in Isle of Wight. While much of this data is currently available to the public, the ETF found that a single, inclusive resource on the County's website would be beneficial

Final Thoughts

The Energy Task Force has created guidance for the County, although not necessarily the specifics, for energy growth in Isle of Wight. Over fourteen months of collaboration, all members of the ETF agreed that the details are best left to the current experts, including Emergency Management, the Planning Commission, and the Economic Development department. The task force realized that energy guidelines are a hot topic, frequently changing, sometimes confidential, and often lacking. Technology to address emergencies is not keeping up with energy advancements. It appears the growth of energy projects is moving exponentially, while advancements in safety and technology to support such projects are not keeping pace. In addition, energy growth in the Commonwealth is itself mired in politics, as evidenced by legislation introduced during the 2024 General Assembly. The Virginia Clean Economy Act establishes benchmarks for Virginia, especially with renewable energy, that can only be met if localities are supportive of renewable energy projects. A bill was proposed that would have given state agencies the ability to override local decisions with regards to approval. Fortunately, this bill was defeated, but it does emphasize the dilemma facing Virginia as a whole versus counties and cities. In addition, the prevailing political party in the Commonwealth can adjust policy to align with their position, making future planning, especially at the local level, significantly challenging, but not impossible. Planning is the key to success, for as the saying goes, "failing to plan is planning to fail." Isle of Wight County must make planning for energy growth a priority, otherwise it will fail to learn from past mistakes. The ETF has identified items of highest importance the County should tackle first to prepare for ongoing energy projects and those just on the horizon. The five citizen volunteers on the task force, along with the Director and staff of Economic Development, and the numerous presenters embraced the opportunity to participate in this unique project. The creation of an Energy Task Force demonstrates the County's commitment to a comprehensive approach to energy growth for the benefit of citizens and the economy. The members of the ETF are appreciative of their role in preparing Isle of Wight County for the future.

APPENDIX A: ISLE OF WIGHT COUNTY ENERGY TASK FORCE MEMBERS

APPOINTEES	DISTRICT	DATE APPOINTED
Thomas Distefano 15151 Batiste Court Carrollton, VA 23314 757-708-0880	2	2/23/2023
Lewis Edmonds 23427 John Henry Street Windsor, VA 23487 757-871-6550	4	3/16/2023
Lynn Barlow Briggs 211 North Mason Street Smithfield, VA 23430 757-365-1611	1	3/16/2023
David Tucker 6251 Old Stage Hwy. Smithfield, VA 23430 757-334-3726	3	3/16/2023*
VACANT	5	N/A
Michael G. Smith 104 Commerce Street Smithfield, VA 23430 757-576-4203	AT-LARGE APPOINTEE (Town of Smithfield)	4/27/2023
Edward (Gibby) Dowdy 9 Bank Street Windsor, VA 23487	AT-LARGE APPOINTEE (Town of Windsor)	6/1/2023

**Resigned effective 11/16/2023*

APPENDIX B: ENERGY TASK FORCE MEETING DATES

Kick-off Meeting
June 5, 2023

Meeting #2
July 10, 2023

Meeting #3
August 14, 2023

Meeting #4
September 11, 2023

Meeting #5
October 9, 2023

Meeting #6
November 13, 2023

Meeting #7
December 11, 2023

Meeting #8
January 8, 2024

Meeting #9
February 12, 2024

Meeting #10
March 11, 2024

Meeting #11
April 8, 2024

Meeting #12
May 6, 2024

Meeting #13
June 10, 2024

APPENDIX C: ENERGY TASK FORCE SPEAKERS & TOPICS

Jonathan Thompson, Community Electric Cooperative
Electric Co-op History / Role in Energy

Mark Repsher, PA Consulting
Energy Road Map for Hampton Roads

Justin Pope, Dominion Energy
Infrastructure / Innovations / Long Range Programs

Gina Slaunwhite, Columbia Gas of Virginia
Natural Gas Distribution / Supply & Demand / Future of Gas Derivatives

Matt Smith, Hampton Roads Alliance
Offshore Wind / Energy Road Map for Hampton Roads

Erich Fritz & Kelsie Jewell, Dominion Energy
Solar, Battery Storage, SMRs & PJM Relationship

Brett Malone, VT Corporate Research Center
Green Hydrogen Technology / VT-NN Hydrogen demonstration project

Larry Corkey, Virginia Department of Energy
VA's Energy Plan 2022 / Other Commonwealth energy initiatives

Amy Ring, Isle of Wight County Community Development
Comprehensive Plan Update & County Zoning Ordinance

Emily M. Jordan, Virginia State Senate, District 17
Solar Legislation

Will Drewery, Isle of Wight County Fire Rescue
Emergency Management Plan / Fire Rescue Response

APPENDIX D: ENERGY TASK FORCE MISSION & GOALS

Mission:

The Energy Task Force will assess the strengths, weaknesses, opportunities, and vulnerabilities of the county's energy planning to date and provide recommendations to enhance sustainability, reliability, and economic growth.

Goals:

- The ETF will concentrate on gaining information from knowledgeable sources on existing energy infrastructure capacity, current and emerging energy generation and storage technologies, strategies and programs underway by energy providers and diversification strategies for traditional and renewable energy relevant to local government purview, regulation and influence.

- The ETF will provide periodic progress reviews to the Board of Supervisors to ensure the ETF is meeting the Board's intent.

- The ETF will make a comprehensive set of recommendations to the Board of Supervisors in June 2024 or as directed by the Board; examples of possible recommendations include:

    - develop energy-related amendments to the County's Comprehensive Plan and additional areas for inclusion in the county's Zoning Ordinance.
    - identify emerging and future energy sources with potential job creation and other economic development enhancements.
    - assess the complexity and rapidity of change in the energy environment and make a recommendation to the Board of Supervisors on the necessity for an enduring advisory organization.

APPENDIX E: ENERGY TASK FORCE ANTICIPATED DELIVERABLES & SWOT ANALYSIS

1.Identify energy-related gaps in the County's Comprehensive Plan and additional areas for inclusion in the County's Zoning Ordinance.

2.Recognize opportunities for leveraging increased shares of job creation and economic development from emerging energy sources for the County.

3.Define the complexity and rapidity of change in the energy environment for the County.

4.Provide an assessment on the need for an advisory organization or other resources for ongoing technical analysis.

5.Recommend methods for the County to educate the public, including the business community, and gain input on energy-related matters.

Goal #1: Identify energy-related gaps in the County's Comprehensive Plan and additional areas for inclusion in the County's Zoning Ordinance.

Strengths

- High transmission lines cross the county
- Natural gas pipeline crosses the county
- Broadband data lines cross the county (need to verify)

Weaknesses

- Coastal weather threat stereotypes
- Hampton Roads is the end of the natural gas pipeline
- Does county electrical code account for charging stations (residential/commercial)
- Current definition of "utility scale solar" does not account for smaller/microgrid projects
- Ord 4.H. does not cover decommissioning
- Ord 4.J. potential to discourage capital improvement and impacts smaller/microgrid projects
- Ord 4.O. County Emergency Management doesn't have a standardized risk matrix for solar
- Energy is a gap in the current comprehensive plan

Opportunities

- Create a standard risk matrix details responses and/or mitigations for a defined set of circumstances and environmental factors such as
    - Weather: flooding, wind hurricane, wildfire, earthquake, extreme temps
    - Electrical failure
    - Cyber failure (loss of monitoring, hacking, etc.)
- Pushback on coastal weather threats vs rest of Hampton Roads
- Explore opportunities to "tap into" resource streams transiting through the county (electric, gas, broadband)
- Encourage charging stations in developments/new businesses (gas stations)
- Set standards for energy storage via ordnances/code
- Broaden 2% rule to allow microgrids within developments

Threats

- Lack of emergency management plans/procedures for energy generation and storage
- Lack of monitoring standards for energy storage facilities
- "Let it burn" emergency management response to energy facility fires is unlikely to be acceptable during a crisis
- Energy storage projects would potentially incur more cost to the county in terms of emergency management that may not be offset by current tax scheme

Goal #2: Recognize opportunities for leveraging increased shares of job creation and economic development from emerging energy sources for the County.

Strengths

- Skilled workforce
- High transmission lines cross the county
- Natural gas pipeline crosses the county
- Broadband data lines cross the county
- Citizens have indicated an interest in energy projects in the County, especially ones that directly impact them.

Weaknesses

- Restrictions or “gaps” related to zoning
- Regulatory restrictions/issues
- Understanding the implications of the Virginia Clean Energy Act
- No long-term energy plan for the county
- Energy expansion within the county so far has been limited to solar
- Members of the Planning Commission and Economic Development Department do not currently have technical expertise regarding various forms of energy.

Opportunities

- Partner with local industry and educational institutions for workforce training opportunities to support energy growth in the county.
- Capitalize on workforce with nuclear experience due to Surry plant and Navy ships
- Explore opportunities to “tap into” resource streams transiting through the county (electric, gas, broadband)
- Focus on energy opportunities as part of the upcoming review of the county’s comprehensive plan.
- Increase awareness and demand for clean and sustainable energy
- Identify “good fit” emerging energies for IOW.

Threats

- Citizen concerns with development of energy facilities and environmental impacts.
- Gaps in existing county code/ordinances could delay review/approval process.s
- Plans for emergencies and natural disasters
- Regional cooperation in other areas of Virginia is more organized than Hampton Roads

Goal #3: Define the complexity and rapidity of change in the energy environment for the county.

Strengths

- Availability of land
- Access to the grid
- Skilled workforce
- Energy Task Force shows county's commitment to energy development

Weaknesses

- Restrictions or "gaps" related to zoning
- Regulatory restrictions/issues
- Understanding the implications of the Virginia Clean Energy Act
- Limited technical expertise on energy in county government
- No long-term energy plan for the county
- Energy expansion within the county so far has been limited to solar

Opportunities

- Partner with local industry and educational institutions for workforce training opportunities to support energy growth in the county.
- Focus on energy opportunities as part of the upcoming review of the county's comprehensive plan.
- The Virginia Clean Energy Act falls across multiple categories.
- Capitalize on workforce with nuclear experience due to Surry plant and Navy ships
- Increase awareness and demand for clean and sustainable energy
- Identify "good fit" emerging energies for IOW

Threats

- Areas of Virginia are becoming "centers" for specific types of energy-related industries
  - Southwest VA--green energy (Delta Lab)
  - Northern VA--data centers
  - Western Tidewater--solar
- Citizen concerns with development of energy facilities and environmental impacts.
- Gaps in existing county code/ordinances could delay review/approval process.s
- Plans for emergencies and natural disasters

Goal #4: Provide an assessment on the need for an advisory organization or other resources for technical analysis.

Strengths

- The county established an Energy Task Force to to assess the strengths, weaknesses, opportunities, and vulnerabilities of the county's energy planning to date and provide recommendations to enhance sustainability, reliability, and economic growth.
- Existing county entities, such as the Planning Commission and the Department of Economic Development, serve as current monitors for establishment of new energy facilities.

Weaknesses

- Members of the Planning Commission and Economic Development Department do not currently have technical expertise regarding various forms of energy

Opportunities

- Partnerwith Hampton Roads Regional Alliance or other regional groups to advise on new energy facilities.
- Identify individuals locally with expertise on various types of energies.
- Promote the county's focus on and commitment to emerging energy opportunities.

Threats

- Financial obligations related to ongoing energy advisory group or consultant.
- Finding individuals with technical expertise on various types of emerging energies.
- Lack of clear purpose for an advisory organization and how they fit into current hierarchical structure.

Goal #5: Recommend methods for the County to educate the public, including the business community, and gain input on energy-related matters.

Strengths

- The public has demonstrated interest in energy projects that directly impact them (e.g. proximity to the project, etc.). More active engagement will result in greater public feedback perhaps, soliciting feedback from a more representative sampling of the community.

Weaknesses

- The ETF assess that the general public's knowledge level is currently relatively low on policy topics influencing energy production. For example, the Virginia Clean Economy Act (VCEA) requires electricity to be delivered from 100% renewable sources by 2045 with iterative milestones to implementation leading to that end state.
- Cost of energy per production type is not well known. Consumer cost has been demonstrated to be a high priority to the public, therefore more study and public information is necessary

Opportunities

- IOW should use engagements with the public to provide factual and unbiased information to the highest extent possible. In the event biased information is offered to the public, IOW should consider indicating the bias of the source and also offer counter position informational sources. Ideas for public engagement include:
    - Using public hearings to direct attention to relevant information.
    - IOW county website resource links
    - Comprehensive plan engagement during public outreach and publication
    - County Fair – include information at an existing IOW booth
    - Social media postings
    - Peg Channel
    - Advertisements during the closed session portion of County meeting broadcast.
    - Public survey questions. What does the public want to know more about. FAQ section on website.
- Review currently publicized information on services that run through county (e.g. gas, power, water, fiber, sewer, fiber, etc.) to ensure County is providing most all relevant information to attract desired energy producers and consumer business opportunities.
- ETF present to IOW BOS, Town governments (Windsor, Smithfield)

Threats

- Lack of knowledge could lead to uniformed opinions and decisions.