**DEBRA J. HEFFERNAN**
STATE REPRESENTATIVE
6th District

HOUSE OF REPRESENTATIVES
STATE OF DELAWARE
411 LEGISLATIVE AVENUE
DOVER, DELAWARE 19901

COMMITTEES
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# House Natural Resources Committee Meeting Minutes

1.26.21

Chair Heffernan called the virtual meeting to order at 4:02 p.m. She stated that the meeting was planned in accordance with HCR 1 and took a roll call of the committee members. Members present included Vice Chair Griffith, and Reps. Carson, Lambert, Bush, Bentz, Kowalko, Collins, Gray, Postles, and Shupe. Sen. Hansen and Rep. Osienski were also present as well as Secretary Shawn Garvin of the Department of Natural Resources and Environmental Control (DNREC) and Public Advocate Andrew Slater. For a list of guests present, please see the speaker list below.

Chair Heffernan called on Sen. Hansen to introduce **SB 22, AN ACT TO AMEND TITLE 3 OF THE DELAWARE CODE RELATING TO INVASIVE PLANTS.**

Sen. Hansen, the prime sponsor of the bill, stated that this bill had been passed by the Senate last year, but was put on hold due to the pandemic.

Sen. Hansen explained that this bill came from the Delaware Native Species Commission. She stated that the Commission stems from the Ecological Extinction Taskforce who identified local flora and fauna extinction causes. The Taskforce concluded that habitat loss, habitat fragmentation, climate change and invasive species were major extinction causes, and this bill allows the Taskforce and the Commission to address a ban on the sale of invasive species.

Sen. Hansen explained that the bill also came from the Delaware Landscape and Nursery Association and added that invasive species are causing a collapse in the native food chain. She reiterated that this bill puts a ban on the sale, transport, and distribution of invasive species named by the Delaware Evasive Species Council; and requires plants identified as potentially invasive be sold with a caution tag. Sen. Hansen added that this bill takes effect on July 1, 2022, as requested by the Association so that they may clear inventory and enter new contracts for the growing season. She concluded her remarks by explaining that there is a warning system in place for violators, which includes an administrative hearing and allotted time for the violation to be fixed without being charged. She added that the violation can range from a penalty of $50 to $500.

Chair Heffernan shared the personal story of planting flats of English Ivy, an invasive plant species, 30 years ago and now it is all over her yard and her neighbor’s yards.

Vice Chair Griffith asked how consumers would know if they were purchasing potentially invasive plants through a landscaper. She inquired if there is a place where these plants would be identified.

Sen. Hansen responded that there are several websites that list invasive species for certain areas, including the Delaware Invasive Species Council.

Vice Chair Griffith asked if the bill would prevent landscapers from using invasive species in someone's home after 2022.

Sen. Hansen stated that it would.

Rep. Collins requested an explanation of the word "propagate" in line 17 of the bill.

Sen. Hansen responded that the word is used in context to the point of sale. She explained that those who propagate invasive plants for sale would no longer be able to do so.

Rep. Collins questioned the rules in which a state agency, specifically DNREC, have in the enforcement of restrictions of invasive plants.

Sen. Hansen pointed to line 78 of the bill for the rules regarding violation enforcement. She clarified the Department of Agriculture oversees this bill not DNREC.

Rep. Collins expressed concerns over the Secretary's power stated on line 25 of the bill. He also asked if there would be a situation in which the state would remove plants from a person's home if it were identified as an invasive species.

Sen. Hansen did not think that situation was likely. She reiterated that the Department of Agriculture would be promulgating regulation.

Rep. Collins agreed that it was the Department of Agriculture and stated confidence in the Department's capabilities. He stated that the bill has open ended language and could be misinterpreted in the future.

Chair Heffernan opened the meeting for public comment.

Dustyn Thompson, Community Outreach Coordinator for the Delaware chapter of the Sierra Club, spoke in support of this legislation. He stated that this legislation would help combat the impact invasive species have on Delaware's flora, fauna, and farms.

David Stevenson stated that there is a need to have different categories separating invasive species that spread faster than others.

Coralie Pryde, League of Women Voters of Delaware, stated support for this legislation.

Aimee Isaac from the Center for the Inland bays expressed support for the bill. She stated that SB 22 aligns with an objective of the Comprehensive Conservation and Management Plan for the Inland Bays and their Watershed, and Delaware's Wildlife Habitat Action Plan. Ms. Isaac stated that nationwide invasive species are estimated to cost $160 billion in damages and expressed concern for the lag time of which plants become invasive and when they are identified. Mrs. Isaac suggested an amendment be added to the bill which annually updates the list of invasive and potentially invasive species.

Sen. Hansen stated that the scientists on the Invasive Species Council, the Delaware Native Species Commission and the Department of Agriculture are the creators of the invasive plants list. She added that the plants listed by Mr. Stevenson are not present on the list. Sen. Hansen assured the members of the Committee that the Commission would keep the list updated.

Vice Chair Griffith stated that the Tree of Haven was included on the list and that it is notable in its attraction of the spotted lantern fly.

Rep. Gray expressed support for the bill.

A motion was made by Rep. Gray and seconded by Rep. Carson to release SB 22 from committee; motion carried. Yes= 9 (Heffernan, Griffith, Carson, Lambert, Bush, Kowalko, Collins, Gray, and Postles); No=0; Absent= 2 (Bentz and Shupe). The bill was released from committee with a F=6, M=4, U=0 vote.

Rep. Osienski introduced **SB 33, AN ACT TO AMEND TITLE 26 OF THE DELAWARE CODE RELATING TO RENEWABLE ENERGY PORTFOLIO STANDARDS.** Rep. Osienski, a sponsor of the bill, stated that this bill is similar to SB 250 from the 150th General Assembly but excludes the provisions regarding community solar. He explained that the Renewable Energy Portfolio Standards (RPS) in this bill meet the Governor's objectives on renewable energy and stated that the bill resolves disputes around the current RPS status and will end current litigation.

Rep. Osienski stated that the RPS is Delaware's principal policy for reducing admissions of greenhouse gasses and other pollutants from the energy sector. SB 33 raises the RPS from the current policy of 25 percent by 2025, to 40 percent by 2035 with a minimum requirement of 10 percent being in solar renewable energy. Rep. Osienski commented that he believed that an increase to 50 percent should continue to be discussed. He refuted worries that an increase would cause energy shortages and rolling blackouts, adding that the regional energy grid operator, PGM, looked at the energy grid stability up to 30 percent and concluded that there was no problem at this amount.

Rep. Osienski continued his remarks by stating that this bill sets up a trigger that will activate when a certain cost level is met that the electric utilities are forced to make alternative compliance payments instead of purchasing Renewable Energy Credits (REC). He stated that this mechanism will protect rate payers by setting a maximum price for RECs and Solar Renewable Energy certificates (SREC). Rep. Osienski explained that electric utilities cannot decide to pay high prices for RECs and SECs or make alternative compliance payments that would pass costs to rate payers without oversight. The Public Service Commission and the Public Advocate oversee determining whether these costs can be passed to rate payers. Rep. Osienski stated that this bill would replace the current cost-cap provision which has caused dispute and litigation.

Rep. Kowalko asked if oversight will be handled by the Public Service Commission.

Rep. Osienski responded yes.

Rep. Kowalko expressed concern for the rate payers being powerless within this system. He was hopeful of future legislation that would restructure the system to make power suppliers required to purchase from a clean energy generated source. He added that the purchase of RECs and

SRECs is more expensive than generating power from a solar field or wind farm. Rep. Kowalko stated that the current system is skewed, and Delaware is not getting the direct benefits from the purchase of out of state RECs and SRECs.

Rep. Postles asked how the cap of $150 was determined.

With permission from the chair, Rep. Osienski had DNREC Secretary Garvin come forward. Secretary Garvin stated that the $150 figure was considered balanced in price while still allowing for the development of solar. He added that this figure would have to be reviewed constantly and that all parties involved agreed on this price.

Rep. Postles asked what the average rate is in Delaware.

Secretary Garvin responded that the average price has been close to $40 to $60.

With permission from the Chair, Public Advocate Andrew Slater agreed with Secretary Garvin's statement. He added that Delmarva Power has price discretion.

Rep. Postles reiterated his concern for high price caps. He added that consumers monthly bills will go up and this would have an adverse effect on those of the lowest wage bracket.

Rep. Collins asked how much solar electricity could be generated on a cloudy and rainy day. He added that power companies must have back up fossil fuel power plants to make up for days when it is not sunny or windy.

Secretary Garvin responded that this bill is consistent with the evolution of renewable energy capabilities. He added that this RPS does not go beyond the capacity to provide adequate electricity to Delaware.

Rep. Collins asked Secretary Garvin if he knew how many miles of solar panel would be needed to meet the goals of the bill.

Secretary Garvin responded that he did not.

Rep Collins stated that he received an estimate of 25 square miles. He asked if the Secretary had looked into how much farmland would be taken out of production to meet the goal of the bill. He asked Mr. Slater to confirm his comment from before that the average Delmarva Power costumers bill would rise $5-$6 a month.

Mr. Slater confirmed this comment.

Rep. Collins stated that he spoke to a farmer whose annual electric bill was approximately $175-$200,000. Rep. Collins asked if there were any estimates on the price raise for those paying large amounts for electricity.

Mr. Slater responded that commercial and industry costs will decrease as the Wind contracts expired in 2027, 2030, and 2031. He stated that they do not know a definite number but that costs would come down.

Rep. Collins stated that the energy programs enacted in the last 15 years have driven up the costs of electricity for the poorest while subsidizing the wealthy. He expressed concern with the fast pace of which the bill was moving through the legislature.

Chair Heffernan mentioned a Delaware program where farmers were using solar power to run chicken houses.

Rep. Lambert stated that he received comment from his constituents in favor of having competitive RPS policy in comparison to Delaware's neighboring states. He looks forward to continuing the conversation regarding RPS policy and the community solar bill in the future.

Rep. Gray expressed reservation with the speed of which this bill was moving. He would prefer more time to research this policy and its effects on the consumer. He stated support for climate policy but is not in favor of the long periods that the bill states, as it could lock them into policy that may need to be changed in the future. Rep. Gray urged the committee members to not let this bill out of committee.

Chair Heffernan stated that this bill had a previous iteration that had been introduced last session but was halted by the pandemic.

Rep. Osienski responded that there has been serious research into the costs that this bill would have on consumers. He explained that the current costs are due to expensive wind contracts and the Bloom Energy incentives, both of which are phasing out. Rep. Osienski stated that, by 2035, the costs are estimated to decrease from $8 to $5 and could decrease even more with the possibility of new technology.

Rep. Kowalko stated that costs decrease with more renewable energy. He added that Delaware is in the unique position to potentially participate in Maryland's offshore wind project. Rep. Kowalko stated that comments about the costs of renewable energy are driven by the misunderstanding that Bloom fuel cells were renewable energy sources. He stated his regret for voting for the Bloom surcharge and reiterated his support for renewable energy generation and his disdain for the effect's climate change has on the average person. He urged the committee member to see the higher purpose in clean energy policy in its efforts to help the environment.

Rep. Collins responded to Rep. Kowalko by referencing his experience as a famer and his worst harvest occurring in the 1980s. Rep. Collins referenced an earlier statement about chicken farmers and stated that some chicken farmers receive large grants and low interest loans paid for by the average rate payers. He reiterated his disdain for corporations receiving subsides at the cost of Delaware rate payers and referenced the Bloom deal.

Chair Heffernan asked for the meeting to remain peaceable and focused on the bill.

Vice Chair Griffith thanked the sponsors of the bill and stated support for the bills reduced reliance on fossil fuels. She added that many of the members sitting on the current House Natural Resources Committee were not around at the passage of the Bloom deal.

Chair Heffernan opened the meeting for public comment.

Lisa Locke, Executive Director for Delaware Interstate Power and Light, expressed support for this bill and offered a statement signed by 40 ministers, including the Episcopal Methodist and Lutheran bishops and the president of the Interdenominational Minister's Action Council, sent to the Governor and all members of the General Assembly. Mrs. Locke urged the committee to pass this bill in order to solve the current cost cap issue.

Sherri Evans-Stanton, Director of the Sierra Club Delaware chapter, expressed support for SB 33. She stated that the bill will resolve litigation between DNREC and the Public Service Commission. She added that the proposed alternative compliance payments (ACP) have been successfully used in other states RPS programs to replace Delaware's cost caps. Mr. Evans-Stanton is confident that there is enough support to pass a 50 percent RPS goal and should be kept in the conversation.

Dustyn Thompson, Community Outreach Coordinator for the Sierra Club Delaware chapter, stated that the market driven approach to ensure consumer protection in SB 33 has garnered bipartisan support in other states. He stated that we should move forward with the solution that is supported by the Public Service Commission, the public advocate, DNREC and many more. Delaware operates on a regional energy field and the likelihood of there being a lack of sunshine or wind over the entirety of the grid is low. He stated support for investment in clean energy around Delaware, as air from the west also impacts Delaware. Mr. Thompson stated that this bill is not a binding contract and there are options as to where Delaware's energy is sourced. He urged the committee to pass this legislation.

Matin Willis stated that SB 33 will raise electricity rates for the residents of Delaware. He cited the United States Energy Information Administration (EIA) by stating that the average price per kilowatt is $10.52. He expressed concern for the price increasing to $13 by 2025 and $18 by 2035. The EIA states that Delaware's 2019 State summer capacity electricity was 3372 megawatts per day. He added that 87 percent of that electricity came from natural gas, 4 percent came from coal and 5 percent from landfill gas. Mr. Willis explained that the 40 percent threshold in this bill will need1400-1500 megawatts of renewable to be built. He stated that rate payers would be burdened with financial choices due to the costs of building renewable energy. He added that Pennsylvania has a lower average cost than Delaware and hinted that businesses may move out of state.

David Stevenson with the Caesar Rodney Institute stated his experience in researching cost caps and working with the Renewable Energy Taskforce. He explained that for the last 3 years the weighted average for SRECs was $35. Delmarva Power has discretion to set a cap at $50. Delmarva can also buy SRECs through a spot market option which has been priced at $9 for the recent years. Mr. Stevenson pointed to line 156 of SB 33 in reference to keeping consistency with local states in the region. He posed that Maryland would reduce their price until 2030 as the costs of renewable energy go down. Mr. Stevenson suggest a similar model be adopted in Delaware through an amendment.

James Dechene, on behalf of the State Chamber of Commerce, stated that decreasing costs are almost certain as long-term contracts expire and technology advances. He raised concern over this piece of legislation being used to dismiss a lawsuit brought upon DNREC. Mr. Dechene stated that DNREC should have instituted costs caps for hitting over 3 percent. He added that with the court case being dismissed they will never know if DNRECs actions were in compliance. He expressed concern for the Public Advocate no longer being a part of the cost cap process.

Cory Budischak, assistant professor at Temple University, stated his 14-year experience on 100 percent renewable energy sources. Mr. Budischak clarified a misconception that energy is okay when the sun and wind are not present. He added that the previously stated 25 square miles of solar need to power Delaware is only correct if it was Delaware's sole energy source. He stated that at a 40 percent RPS goal, the amount of land needed would be closer to around 10 square miles. Mr. Budischak agreed that aggressive RPS policy does financially burned the poor, however SB 33 is not aggressive. He added statistics of the goals Delaware needs to meet in the future. He stated that this bill is a small first step, and that Delaware needs stronger legislation to meet its goals.

Jeffery Richardson, President and CEO of Imani energy Inc, expressed support for this bill. He stated that there is a strong economic push towards renewable energy, and that even major fuel providers are investing into it. He urged Delaware to shift its economy towards renewable energy to provide jobs for the next decade. Mr. Richardson added that Delaware must provide policy that address economic, climate and environmental crises that we face.

Peggy Schultz representing the League of Women Voters of Delaware, stated that the most debated aspect of this bill is cost. Mrs. Schultz disagreed that cost was a problem. She reiterated conversation about closing wind contracts and Bloom energy contracts that will decrease costs. Mrs. Schultz stated that Delaware should be a leader in efforts to combat climate change as sea water rise is an ever-pressing concern. She added that the League of Women Voters supports this bill and hopes the RPS goal can be increased to 50 percent.

Richard Wilkins, President of the Delaware Farm bureau, explained that famers are not able to set their price of goods and that any increase in the cost of their business is a cause for concern. He added that the amount of land needed for this bill would compete with famers and many other alternative land use programs. He hopes that the sites chosen for solar use would not cause conversion of agricultural land. Mr. Wilkins suggested parking lots, rooftops, brownfield sites, be used for solar collection panels.

Calvin Sparks, on behalf of Delaware United, expressed support for this bill. Mr. Sparks stated that this bill is a solid step towards Delaware's transition to clean energy. He explained that Delaware united is a part of the RPS coalition and hopes to see the goal of 40 percent be raised to 50 percent. He added that the 50 percent goal is attainable without costs to the average consumer. Mr. Sparks stated that other states have used this 50 percent goal as a steppingstone to 100 percent renewable energy. Delaware united looks forward to working on this topic more in the future so that the people may have clean renewable energy.

Anne Kirby, Co-Chair of the Delaware Energy Services Coalition, spoke on behalf of this bill. Ms. Kirby stated this bill is an important ingredient for securing existing jobs, opening growth opportunities for additionally jobs, and increased business investment. She stated the energy policy should be a part of Delaware's economic recovery as an estimated 500 workers in Delaware are in the solar industry, with that number continuing to grow. She urged passage of this bill and similar legislation as renewable energy impacts Delaware's economy for the better. She stated that the bills 40 percent goal is too conversative and suggested a minimum goal of 50 percent. Mr. Kirby implored the committee to pass this bill.

Dale Davis from the Delaware Solar Energy Coalition and owner of CMI Solar & Electric Inc, stated that the cost of Solar installment has gone from $12 per Watt to $2.50 for residential and $1 for large scale systems. Mr. Davis expressed concern for the conflict surrounding cost caps and how it could hinder on RPS policy in Delaware. He stated that previous policy was vague and required hours of regulatory hearings over its interpretation. Mr. Davis expressed support for the market-based controls in SB 33. He added that removing the threat of the loss of the RPS would allow renewable energy to take off in Delaware and meet current and future energy demands.

Charlie Garlow from the Delaware Electric Vehicle Association (DEVA) stated support for this bill and its actions in bringing down costs for clean electricity. Mr. Garlow explained that electric vehicle owners and electricity ratepayers would both benefit from this bill.

John Irwin, Co-Chair of Delaware's Sierra Club's Climate and Energy committee, expressed support for this bill. Mr. Irwin referenced past climate disasters which cost billions in damages and we must act to prevent them from getting worst. Delaware is vulnerable to sea level rise and another major storm could be detrimental. Mr. Irwin urges the stop the buying of Fossil fuels. He warned of the costs that may come with not meeting the global reduction goals. Mr. Irwin added that those who suffer from environmental health conditions and disasters will continue to suffer. Mr. Irwin called on bold decisive action to stop climate change and for Delaware to be a leader in the clean energy transition.

Aimee Isaac Center for the Inland bays Appointee for the Senate Pro Tem, expressed support for the bill. She stated that the Inland bays are affected the most by intensifying storms, coastal erosion, accelerating sea level raise, and wetland lose. Mrs. Isaac stated that from 2010 to 2017 Sussex county had the third highest number of homes, 1233, built in flood risk zones of any county in the United States. Communities near the shore regularly flood and continue to see sea level rise. Mr. Isaac expressed support for a higher renewable energy sources goal of which reflect Delaware's neighboring states.

Coralie Pryde expressed support for the bill and any legislation that would move Delaware away from fossil fuel usage. Mrs. Pryde stated her experience as a rate payer in Delaware and the fluctuating prices in electricity costs. She explained that it was recommended before that Delaware produce its own energy to keep costs stable. Mr. Pryde believes that Delaware should be generating power in neighboring states or buying offshore wind as it is now cheaper. She added that this action would help poorer residents as renewable energy programs have benefits for lower income residents.

Jill Gaumer a member of the Sierra Club of Delaware supports the passage of SB 33. Mrs. Gaumer stated that SB 33 address the issue of cost caps with support of the Public Service Commission, the Public Advocate, DNREC and Delmarva Power. She hopes that the House and Senate move forward with community solar to help moderate- and low-income people with access to affordable solar energy. Mr. Gaumer hopes that Delaware will match policy goals of neighboring states and increase the RPS to 50 percent. She added that the United States Labor Statistics Board forecast labels Solar installers and Wind technicians as the two largest growing job areas to 2026.

A motion was made by Vice Chair Griffith and seconded by Rep. Carson to release SB 33 from committee; motion carried. Yes= 7 (Heffernan, Griffith, Carson, Lambert, Bush, Bentz, and Kowalko); No=4 (Collins, Gray, Postles, and Shupe); Absent= 0. The bill was released from committee with a F=6, M=0, U=2 vote.

Chair Heffernan adjourned the meeting at 6:01 p.m.

Respectfully submitted by:

Valeria Coverdale

Speaker list:

Secretary Shawn Garvin of the Department of Natural Resources and Environmental Control (DNREC)

Andrew Slater, Public Advocate

Dustyn Thompson, Sierra Club Delaware Chapter

David Stevenson, Cesare Rodney institute

Coralie Pryde, League of Women Voters of Delaware

Aimee Isaac, Center for the Inland Bays

Lisa Locke, Delaware Interstate power and light

Sherri Evans-Stanton, Sierra Club Delaware Chapter

Matin Willis, Newcastle Resident

James Dechene, State Chamber of Commerce

Cory Budischak, Temple University

Jeffery Richardson, Imani energy Inc,

Peggy Schultz, League of Women Voters of Delaware

Richard Wilkins, Delaware Farm Bureau

Calvin Sparks, Delaware united

Anne Kirby, Delaware Energy Services Coalition and Green Building Untied

Dale Davis, Delaware Solar Energy Coalition

Charlie Garlow, Delaware Electric Vehicle Association (DEVA)

John Irwin, Sierra Club Delaware Chapter

Jill Gaumer, Sierra Club Delaware Chapter

113 Blue Rock Road, Wilmington, Delaware 19809
Home: (302) 762-3478 House Offices: Dover: (302) 744-4351 Fax: (302) 739-2313
Wilmington: (302) 577-8476 Fax: (302) 577-6701 Email: Debra.Heffernan@delaware.gov

# 1.26.21 House Natural Resources Meeting

Public Comment
Part I

**SB 33 (Sponsor: Hansen)**

***Submitted by Jack Guerin | January 19, 2021 at 1:00 p.m.***
Public Comment on SB 33

Unitarian Universalist Delaware Advocacy Network (UUDAN)

States have been very active in the past year in revising their Renewable Portfolio Standards. These standards have been created to diversify energy resources, promote domestic energy production and encourage economic development.

Renewable energy policies help drive the nation's $64 billion market for wind, solar and other renewable energy sources. These policies can play an integral role in state efforts to diversify their energy mix, promote economic development and reduce emissions.

Roughly half of the growth in U.S. renewable energy generation since the beginning of the 2000's can be attributed to state renewable energy requirements. Fourteen states including most of Delaware's Mid-Atlantic neighbors have requirements of 50% or greater.

Delaware's "Favorite Son" Joe Biden is making climate change a major priority across the federal government. The Delaware General Assembly should support this bold action by our new President and increase our RPS Standard to 50% by 2035.

***Submitted by John Irwin | January 26, 2021 at 5:48 p.m.***

Thank you for permission to speak. My name is John Irwin. I'm a co-chair of DE Sierra Club's Climate and Energy Committee.

I wanted to speak today because this is a great opportunity for Delaware to step up and accelerate its contribution to addressing the climate emergency. We've seen the effects all across the country in the last year: Mid-Western floods, West coast wildfires, Gulf state hurricanes, Mid- West and Southern tornadoes costing billions of dollars in damages. These climate disasters are not going away. What we can do is prevent them from getting even worse. That's what this bill does. DE as a coastal state is vulnerable to sea level rise and storm surges, remember Hurricane Sandy? We got lucky. Next time it could be us taking the hit.

Dirty fossil fuels have caused air and water pollution problems for our region and we in DE Need to do our part to stop encouraging its use in neighboring states by reducing the amount we are buying.

The costs of not meeting the global reduction goals are incalculable. Lives will be lost, Delaware's coastal communities will go underwater. All the extreme weather we're already seeing will become normal, costs will explode to recover from that. The most disadvantaged among us suffer the most from the climate emergency, heat stress, heat stroke, flooding, asthma, and other effects.

We are racing towards a catastrophic climate change. We're already at 1.2 degrees above pre- industrial temperatures and the Paris Agreement urges that we should do everything we can to stay below 1.5 degrees. We need bold, decisive action to achieve that.

Political will, political courage, is what is needed to have any chance of our grandchildren having a world anything like ours. That means your political courage, right now.

Please move this bill forward with your approval and let's work together to get Delaware into a leadership role around the clean renewable energy transition.

***Submitted by Susan Mack | January 26, 2021 at 2:37 p.m.***

Dear Committee Members,

I am a lifelong resident of Delaware and live in Wilmington. I would like to submit this written comment on the RPS bill (SB 33) that you will be considering at today's committee hearing, as I will not be able to attend in person. I urge passage of SB 33 to update and extend the renewable portfolio standard and modernize the consumer protection mechanism in the law. This legislation is critical to reducing greenhouse gas emissions from electricity generation and reducing the impacts of climate change on our state and the nation as a whole. The original RPS was enacted in 2015 and is long overdue for an update. I had hoped that SB 33 would set a more ambitious RPS goal of at least 50%, given the increasing availability and reduced costs of renewable energy; however, SB 33 is a good start, with the expectation that the legislature will consider a more ambitious goal of 50% or more in the future. Several surrounding states have already adopted RPS goals of 50% or more. I also understand that fixing the current cost cap calculation is critical to preserving our RPS goals and encouraging the development of more renewable energy jobs here in Delaware. DNREC, Delmarva, the Public Advocate, and the PSC all agree that the new mechanism provided by SB 33 will be effective in protecting energy consumers.

Thank you for your consideration of my comments.

# 1.26.21 House Natural Resources Meeting

Public Comment

Part II

**SB 33 (Sponsor: Hansen)**

1. ***Submitted by Gary Myers | January 25, 2021 at 8:38 a.m.***
2. ***Submitted by David Stevenson | January 26, 2021 at 9:53 a.m.***
3. ***Submitted by Corey Budischak | January 26, 2021 at 5:34 p.m.***

January 17, 2021

The Honorable Debra Hefferman, Chair

The Honorable Krista Griffith, Vice-Chair (all by electronic copy sent by e-mail to House Clerk)
The Honorable William J. Carson
The Honorable Larry Lambert
The Honorable William Bush
The Honorable David Bentz
The Honorable John A. Kowalko
The Honorable Richard G. Collins
The Honorable Ronald E. Gray
The Honorable Charles S. Postles, Jr.
The Honorable Bryan W. Shupe

Natural Resources Committee
Delaware House of Representatives
411 Legislative Avenue
Dover, DE 19901

Re: ***Senate Bill No. 33 (Hansen) - amendments to Renewable Energy Portfolio Standards Act - Comments Urging Modifications to SB 33 submitted by Gary Myers***

Dear Natural Resource Committee Members:

I write to your Committee about Senate Bill No. 33 (Hansen) which would amend Delaware's Renewable Energy Portfolio Standards Act (REPSA). SB 33 has passed the Senate and is before the House for its consideration. I ask that you carefully scrutinize the new "market driven" cost mechanism that the Bill proposes to protect customers against runaway renewable compliance charges. *The problem is that these new "protections" do nothing to roll back the current very high renewable compliance charges paid by Delmarva Power customers. And they do nothing to prevent those same customers from **continuing** to pay those higher-than-market prices over the next 14 years. If the new mechanism in SB 33 is to be adopted it should be modified in three ways to offer at least some protection to Delmarva Power customers.*

I am not I associated with any organization. I am simply a customer of Delmarva Power who each month pays the "Renewable Compliance Charge" brought about the REPSA requirements. My concern is that Delmarva Power - *as it will readily admit* - is now caught in a situation where old long term contracts supposedly bind its customers to continue to pay "way-above market" prices for the necessary RECs and SRECs used each year to comply with renewable energy mandates. The new "market-driven" cost containment mechanism in SB 33 does nothing to free customers from these "above market" charges.

As you will hear, SB 33 has two components. The first deals with REPSA's requirement that each year Delmarva Power procure Renewable Energy Certificates (RECs) and Solar Renewable Energy Certificates (SRECs) that fulfill a preset yearly quota requirement. The yearly quota goal increases each year. SB 33 will extend and expand these yearly quota goals from 2026 through 2035 so that by the final year that quota will require RECs and SRECs equal to 40% of Delmarva Power's residential and commercial electric sales volume. *My comments do **not** speak to this component of SB 33.*

Rather, my comments will focus on the second component in SB 33: the revisions being made to 26 Del. C. § 358(d) & (e) (SB 33 at pgs. 4-5, lines 108-115; pg. 5 lines 127, 131-139). The Synopsis to the bill says that SB 33 deletes the current "cost cap" provisions (26 Del. C. § 354(i) & (j)). These earlier subsections were added to REPSA in 2010 - *at DNREC"s urging* - in order to have in place "consumer protections:" - backstops which would shield DP&L ratepayers from having to pay way too high renewable compliance costs. SB 33 now ends those protections and substitutes a new "market driven" mechanism in revised § 358(d) & (e).

But unfortunately, in real world operation, this new mechanism will provide almost no protection for Delmarva Power customers against paying excessive renewable compliance charges. As SB 33 is now written, the new provisions will allow Delmarva Power to continue to incur high prices for RECs and SRECs and pass those costs on to its customers without any effective guardrails to cabin these renewable compliance charges.

## Current High Delaware REC and SREC Costs and Charges

Proponents of SB 33, as well as Delmarva Power, will likely tell you: (1) that the average residential customer now only pays about $ 8 in monthly renewable compliance charges; (2) that REC and SREC prices will start to decline in the spot markets in 2027; and (3) that by 2035 the monthly renewable charge for residential customers will likely hover between $ 1.68 and $5. All of those things might be true - to a point. The cited average current renewable charge suggests that customers using electricity to heat are the ones paying the higher charges. Nor does that $ 8 "average" price say anything about the higher charges borne by small- and medium-sized business and commercial customers. So too, the spot market prices for RECs and SRECs might be declining. But that forecast only just highlights the problem: Delmarva Power customers are being - and will be - charged REC and SREC prices under old contracts that are far beyond current, or future, lower "market" prices. And the $1.68-$5 compliance charge forecast for 2035 reveals the same problem.

Compliance charge costs drop to that level then only because by that year the mandated Bloom Energy surcharge payments and expensive wind and solar contracts will have ended.[1]

The reality is that Delmarva Power's customers have always had to pay comparably very high costs to comply with the renewable energy mandates under REPSA. For example in the 2019-20 compliance year (which closed May, 2020), Delmarva Power customers shelled out $ 67,259,311 to pay for the 1,289,822 RECs and SRECs needed to comply with that year's REPSA quota number.[2] In contrast, in neighboring Maryland in 2019, all of that State's electric customers paid $ 134,545,520 in renewable energy costs to acquire the 11,433,483 RECs and SRECs required under that State's similar renewable energy mandate. *Marylanders might have paid twice as much as Delmarva Power customers but they got almost 10 times more RECs and SRECs.* A per REC and SREC price comparison tells the same tale:

AVERAGE PRICE of RENEWABIE COMPLIANCE INSTRUMENTS
(per REC, SREC, or REC equivalent)

| | Maryland (2019) | Delaware (DP&L) (2019-2020) |
|---|---|---|
| Non-solar REC | $ 7.77 | $ 33.40 |
| SREC | $ 47.26 | $ 60.02 |
| QFCCP (Bloom) Equivalent REC | n/a | $ 78.68[3] |

1 Under REPSA, output from a Qualified Fuel Cell Provider Project (QFCPP) - such as the Bloom Energy fuel cell park - can create "equivalent" RECs and SRECs which can be used to fulfill the Delmarva Power's yearly REPSA quota numbers. In 2019-20, these QFCPP REC equivalents fulfilled 38% of the year's non-solar REC quota requirements.

2 This number includes the $34,210,271 paid by customers in QFCFPP surcharges ("Bloom Energy surcharges"). As noted above, under REPSA, output from a QFCPP can create "equivalent" RECs and SRECs that can be used to fulfill the yearly REPSA quota numbers. The surcharges "pay" for these equivalent RECs.

3 The Delaware figures in this paragraph are derived from two sources: (1) Delmarva Power's *2019-20 Annual Renewable Compliance Report* (Sept. 2020) filed with the Public Service Commission and (2) Diamond State Generation Partners, LLC's *Annual Report: 2019-20* (2020) also submitted to the Commission. The Maryland numbers are drawn from the Maryland Public Service Commission's *Renewable Energy Portfolio Standard Report With Data for Calendar Year 2019* (Oct. 2020).

What drives these much higher costs paid for by Delmarva Power customers? First is the Bloom Energy surcharges: the amounts paid for the REC equivalents which satisfy almost 38% of the REC quota requirements in a year. The surcharge price for such equivalent REC is 9-10 times higher than a REC market price. But beyond that, Delmarva Power has three long term contracts with Pennsylvania wind farms to supply almost another 43% of its remaining yearly non-solar REC requirements. The charges paid by customers for those wind farm RECs is about $ 67 per REC - 6-9 times higher than comparable spot market prices. So too, on the solar side, Delmarva Power has contracts or commitments with the DE Solar Financing Project and DOVER Sun Park to purchase around 20% of the yearly SREC requirements. The charges for those SRECs are about $ 184 and $ 197 per SREC, respectively. Again, those are SREC charges way beyond spot market prices.

**Failed Earlier Attempts at REC and SREC Price Discipline**

The yearly quota requirements under REPSA were last upgraded back in 2010. When that happened, several members in the General Assembly questioned whether the quota increases would mean electricity customers would face burdensome higher renewable compliance costs. Senator McDowell and then DNREC Secretary O'Mara responded that such would never happen because the 2010 law included much-needed "cost cap" provisions to protect customers. These new provisions, they said, would protect customers by caping yearly renewable energy compliance charges and stalling the quota increases if if costs tripped those "circuit-breaking" caps.[4]

DNREC - which was charged with doing the legwork for these cost cap protections - first ignored the provisions for several years and then resisted having to throw the "circuit breaker" switches when calculations showed that renewable costs were running above the "cost cap: limits. In the meantime, DP&L customers - for at least the last 7 years - have been paying renewable compliance costs greater than the "cap" levels set forth in the 2010 provisions.

**The Proposed § 358(d) & (e) Mechanisms**

Now SB 33 will do away with those 2010 customer protections. The replacement is a supposed "market-driven" mechanism where pauses in the yearly REPSA quota requirements are keyed to the number of "Alternative

4 Under the 2010 provisions, the caps for expenditure levels were calculated based on whether renewable compliance charges exceeded a certain percentage of the amounts customers paid for the electric supply portion of their bills.

Compliance Payments" (ACP) that Delmarva Power might make in two consecutive years. *See* revised subsections 368(d) & (e).[5]

First, it is not exactly, or immediately, clear how these new provisions put any kind of dollar limit on what DP&L can spend on renewable compliance changes in one, or even two, years. As detailed below, seemingly Delmarva Power can pay (and pass through to its customers) top dollar prices for RECs and SRECs. *So long as Delmarva does not make ACP payments for 15% of its annual quotas in each of two years, it can pass on to customers all these too-high outlays without any restraint.* The new sections impose neither a "hard cap" or any other form of price discipline on Delmarva Power's renewable compliance costs.

*The ACP Process*

You have to dig into the weeds of the ACP process to understand why, in fact, the new provisions offer little, or no, customer protection.

The working theory for the ACP regime is that Delmarva Power has a choice in meeting the annual quota requirements for renewable energy production. On the preferred hand, it can acquire the specified number of RECs and SRECs to equal the yearly quota percentages. On the other hand, for every missing or foregone REC or SREC, Delmarva can choose to substitute an Alternative Compliance Payment charge for any REC or SREC required to meet the quota figures. The ACP charges come in certain per mwh dollar amounts. Under SB 33 the levels are $ 25 for "missed" non-solar requirements and $ 150 for "missed" solar requirements. Because it is assumed that Delmarva will seek compliance through the cheapest means, one would expect Delmarva to buy a REC if its price is less than the ACP charge and, conversely, pay the ACP in lieu of a higher priced REC and SREC.[6] In theory then, the ACP payment amounts ($ 25 and $ 150) create price caps on what should be paid for a REC or a SREC. The new subsections 358(d) & (e) say that if over two years, Delmarva Power pays these ACP charges for 15% or more of either of its yearly quota requirements, then the yearly quota requirement freezes in place until the quantity of ACP charges drops below the 15% threshold.

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5 *See* SB 33 at pgs. 4-5. Subsection (d) speaks to non-solar REPSA requirements and the percentage of "Alternative Compliance Payments" made. Subsection (e) offers the same mechanism for REPSA solar requirements via then number of "Solar Alternative Compliance Payments." For purposes of this letter, I will use "ACP" to cover both subsections.

6 REPSA tries to enforce this choice by saying that Delmarva cannot recover ACP charges from its customers if cheaper RECs or SRECs were available for purchase. 26 Del. C. § 353(f)(2).

*The Bill Needs Explicit "Hard Cap" Language*

In the debate in the Senate, Senator Hansen seemingly adopted this "price cap" theory of ACP charges. She told her Senate colleagues that under the new mechanisms "prices for RECs and SRECs is capped." But nothing in the bill's new language explicitly says that the new ACP payment levels are to be "h**ard caps**" on what Delmarva can pay (and pass through to customers) for RECs and SRECs. *There is nothing explicit tin the text of SB 33 hat prevents Delmarva Power from paying more for RECs and SRECs than those ACP levels. If it does pay more, it can recover those above ACP level costs from its customers and never "pay" any ACP payment that would play into the new ACP cost cap provisions in SB 33.* In such case, customers pay the higher prices without any price protection. In fact, during the Senate proceedings, Delmarva Power suggested it will still collect in its compliance charges the costs for RECs and SRECs under its expensive old wind and solar contracts, even though the per REC and per SREC contract prices exceed SB 33's ACP payment levels. **Consistent with Senator Hansen's statement, SB 33 should be amended to include "hard cap" language that makes it clear that in any given year Delmarva Power cannot pay (and recover from customers) any REC or SREC price that exceeds the ACP payment levels.**

*The ACP Levels Appear to Be Too High*

Second, the ACP (and hence the price cap) charge levels appear to be too high. SB 33 sets a $ 25 ACP charge for non-solar requirements. Yet, the recent spot market price for a non-solar wind REC hovers around $ 7-10. And spot market prices for SRECs recently come in at from $ 10 to $ 76. In contrast SB 33 sets the solar ACP payment charge at $ 150.[7] In fact, during the 2019-20 year, Delmarva Power made spot purchases of 400,000 RECs and 38,712 SRECs for average prices of $ 8.77 per REC and $ 9.83 per SREC.

When there is too much headroom between the ACP payment levels and the real-world market prices for RECs and SRECs, customers are left with little price protection, except for the utility's good faith. For example, under SB 33 Delmarva Power could buy all its non-solar RECs at a cost of $ 24 - way above market prices but just below the ACP level. If so, Delmarva would never pay any ACP charge and hence would never trigger the new "market driven" mechanisms. Yet, customers would end up paying compliance charges way beyond market price levels.

7 One company's' report on the trading prices for RECs and SRECs for various States in December, 2020 is set forth in an attachment to this letter.

**The ACP and SCAP charge levels in SB 33 need to re-examined and lowered.** Again, just two years ago in neighboring Maryland, the legislature reset that State's ACP charge levels at the same time it increased that State's renewable energy quota goals through 2030. Maryland set a $ 30 non-solar ACP charge for 2019 but then stepped it down each year to $ 22.35 by 2030 and beyond. So too, Maryland set its solar ACP charge at $100 for 2019 but moved it down each year to reach $22.35 in 2030 (in comparison to SB 33's flat solar $150 charge level).[8] **The House should consider amending SB 33 to adopt the Maryland scheme of lower ACP and SACP cost levels.**

*Pre-existing Commitments for High REC and SREC Prices*

The Problem

A third problem arises with regard to the SB 33 mechanism. As noted at page 4 above, Delmarva Power currently has several long term contracts with Pennsylvania wind farms and the Dover Sun Park - along with understandings with the Delaware SREC Financing Program - to buy RECs and SRECs. The costs charged to customers for each REC and SREC under those contracts and commitments exceed the ACP payment levels that would become operative under SB 33.[9] Over the last few years, Delmarva Power has recovered these higher prices from its customers. And the volume of RECs and SRECs from these contracts/understandings have accounted for more than 15% of each year's REC and SREC quota requirements.[10]

As said before, during the Senate proceedings, Delmarva Power strongly implied that it would continue to use these wind and solar contracts for RECs and SRECs and continue to pass on to its customers the higher charges created under those contracts and commitments.

In the absence of any "hard cap" language in the new mechansims, nothing prevents Delmarva Power from passing on such high REC and SREC charges But, as explained above, billing for these contract prices would never trigger the new § 358 "protections" since Delmarva Power would not be paying

8 MD Code Annotated *Public Utilities* § 7-705(b)(2)(i)1. & 2..

9 In 2019-20, Delmarva Power customers paid $ 68 per REC for output from the three wind farms. In contrast, the ACP charge for non-solar would be $ 25 per mwh. Delmarva paid paid $ 197 per SREC from the Dover Sun Park and $ 184 per SREC from the Financing Project. The ACP charge level for solar would be $150 per mwh.

10 In 2019-20, Delmarva Power used the three wind farm contracts to fulfill 27% of its non-solar REC requirements. The solar contracts and commitments supplied 20% of the yearly SREC requirements.

any ACP charges.  Yet, if these contracts did not exist, Delmarva Power would either have to buy far cheaper RECs or SRECs or pay the much lower ACP payments.  The result is that Delmarva customers will end up paying REC and SREC prices which are beyond the supposed "price cap" levels that Senator Hansen says that SB 33 imposes.

The Solution

There's a possible solution to this glitch: **add provisions to SB 33 that say that, for purposes of the 15% ACP payment "triggers" under revised subsections 358(d) & (e), prices for RECs and SRECs paid by customers that exceed SB 33's ACP payment levels should be deemed an ACP payment in making the percentage calculations.**  If this language was added to SB 33, this would allow Delmarva Power to honor its contractual and other commitments to the renewable electric generators (if the contracts can't be broken or expire).  But it would also ensure that Delmarva Power customers will not pay *more* renewable cost burdens (because of the increasing quota levels) while these "higher-than-ACP-payment level" contractual prices are collected. Under the "deeming mechanism" if the volume of RECs procured at these higher price levels exceed the 15% trigger levels over two years, then the freeze mechanism would be triggered.  It would last until the volume of RECs or SRECs procured under the expensive contracts drops below the 15% of any year's requirements.  True, such additional language might cause the yearly quota increases to stall in the short term (as the deemed provision triggers the § 358 freeze provisions) but it would mean that customers would be partially protected from paying even more dollars while these old expensive contracts keep renewable compliance charges very high.

## Conclusion

Three things should be done before final passage of SB 33:

1.  Language should be added that explicitly states the ACP and SACP payment levels are "hard caps" on the prices Delmarva Power can charge its customers for RECs and SRECs.

2.  The ACP and SACP payment levels ($ 25 and $ 150) should be scrutinized and changed to reflect more accurately market prices, current and forecast, while still allowing appropriate headroom for forecast errors.

3.  Language should be added to the new provisions of subsections 358 (d) & (e) that says that when Delmarva Power charges its customers renewable charges based on REC and SREC prices that exceed the ACP and SCAP payment levels, each such charge (on a per mwh basis) shall be deemed to be

an ACP or SCAP payment for purposes of the new freeze provision calculations in those subsections.

Respectfully submitted,

Gary Myers
217 New Castle Street
Rehoboth Beach, DE 19971
(302) 227-2775
<garyamyers@yahoo.com>

cc: Rajnish Barua, Exec. Dir., PSC
Andrew Slater, Public Advocate
Thomas Noyes, DNREC
Dawn Kurtz Crompton, Esq.
Counsel for Delmarva Power

(all by electronic copy by e-mail)

## SNL RECs Index

As of: 12/30/20

| Product | Term | Price | Product | Term | Price |
|---|---|---|---|---|---|
| CT Class I REC | 2020 | 43.38 | ME Class II | 2020 | 0.85 |
| CT Class I REC | 2021 | 36.73 | ME Class II | 2021 | 1.00 |
| CT Class II REC | 2020 | 19.88 | NH Class I | 2020 | 44.50 |
| CT Class II REC | 2021 | 20.13 | NH Class I | 2021 | 41.88 |
| CT Class III REC | 2020 | 10.18 | NH Class II | 2020 | 35.00 |
| CT Class III REC | 2021 | 12.98 | NH Class III | 2020 | 33.25 |
| DC Solar REC | 2020 | 447.50 | NH Class IV | 2020 | 21.63 |
| DC Solar REC | 2021 | 447.50 | NH Class IV | 2021 | 22.63 |
| DC Tier I REC | 2020 | 2.50 | NJ Class I REC | 2020 | 10.65 |
| DC Tier I REC | 2021 | 3.25 | NJ Class I REC | 2021 | 10.85 |
| MA APS | 2020 | 3.25 | NJ Class I REC | 2022 | 11.28 |
| MA APS | 2021 | 6.25 | NJ Class II REC | 2021 | 7.63 |
| MA Class I | 2020 | 43.56 | NJ Class II REC | 2022 | 8.31 |
| MA Class I | 2021 | 41.75 | NJ Solar REC | 2020 | 231.88 |
| MA Class II | 2020 | 19.81 | NJ Solar REC | 2021 | 232.63 |
| MA Class II | 2021 | 21.06 | NJ Solar REC | 2022 | 227.63 |
| MA Class II WTE | 2020 | 10.19 | OH Located REC | 2020 | 10.39 |
| MA Class II WTE | 2021 | 17.63 | OH Located REC | 2021 | 10.13 |
| MA Solar I | 2020 | 343.25 | PA Solar REC | 2020 | 21.13 |
| MA Solar I | 2021 | 344.25 | PA Solar REC | 2021 | 23.50 |
| MA Solar II | 2020 | 286.00 | PA Solar REC | 2022 | 25.13 |
| MA Solar II | 2021 | 276.75 | PA Tier 1 REC | 2020 | 10.58 |
| MD Solar | 2020 | 80.63 | PA Tier 1 REC | 2021 | 10.78 |
| MD Solar | 2021 | 80.25 | PA Tier 2 REC | 2020 | 5.81 |
| MD Solar | 2022 | 68.06 | PA Tier 2 REC | 2021 | 7.09 |
| MD Tier I | 2020 | 10.64 | RI NEW REC | 2020 | 43.00 |
| MD Tier I | 2021 | 10.79 | RI NEW REC | 2021 | 41.25 |
| ME Class I | 2020 | 2.56 | TX REC | 2020 | 1.64 |
| ME Class I | 2021 | 4.00 | TX REC | 2021 | 1.68 |

Data is compiled from a range of market indicatives and do not necessarily represent completed trades.
Data for RECs index provided by:
Evolution Markets: http://new.evomarkets.com/
Tradition Financial Services: http://www.tradition.com/
Clear Energy Brokerage & Consulting, LLC: http://www.clearenergybrokerage.com/
Please contact data providers for more detailed or specific transaction data or REC markets not covered by SNL index.
Source: S&P Global Market Intelligence

Caesar Rodney Institute
Center for Energy & Environment
420 Corporate Blvd.
Newark, DE 19702
WWW.CaesarRodney.org

Public comments on Senate Bill 33

Most legislators serving on the Senate and House Energy Committees in 2021 are serving for the first time. I recommend reading this document to learn both the history of Delaware's Renewable Portfolio Standard Act (REPSA), and current electric industry trends. Following is a quick snapshot.

**Did you know?**

- Regional grid manager PJM concluded intermittent wind and solar power will impact electric grid reliability if they account for more than 30% of generating capacity[1]
- California has had rolling black outs when its 25% wind and solar capacity failed to deliver enough power which contributed to blackouts[2]
- Texas saw wholesale power prices spike by 250 times normal when its 20% wind and solar capacity failed to deliver enough power during peak use in August, 2019[3]
- A 2010 REPSA amendment had bipartisan support as large energy users were exempted to keep high paying union jobs in Delaware, and consumer protection was included in the form of a cost cap to protect the 20% of families who forego food and medicine to pay energy bills[4]
- Exceeding the Cost Cap was to lead to a temporary freeze in the ever increasing mandates. We have not kept that promise. Large energy users now pay up to $1 million a year, and the poor are paying up to six times the promised cap
- The Delaware Public Service Commission (PSC) used a duly adopted Cost Cap Calculation to determine Delmarva Power is adding 19% to power supply cost compared to a 3% cost cap, and the cap has likely been exceeded since 2013 with no freeze.
- Nine municipal utilities and the Delaware Electric Cooperative meet the 3% Cost Cap
- DNREC delayed finalizing a required Cost Cap Calculation regulation for six years, and sued and lost two cases in Superior Court delaying the PSC from finalizing its calculation by another three years, and then sued the PSC again to stop implementation of an ordered freeze
- The rush to pass SB33 is to end the DNREC lawsuit that is scheduled to move forward in February. DNREC is clearly concerned they will lose again. DNREC should drop the lawsuit
- An RPS freeze will not impact the Delaware solar industry. Higher upfront Green Energy Fund Grants replace lost twenty year energy credit income, and utility scale solar is being built to actually lower electric rates in Delaware and doesn't need energy credit revenue
- The proposed new cost cap system adopts an Alternative Compliance Payment of $150 for solar when current solar energy credits are selling for $10 to $35, and Delmarva caps its purchases at $50
- Maryland reduces its solar ACP each year and will reach $22 in 2030[5]
- Delaware's current 21% renewable requirement is being met with only 2% in state generation[6]
- Renewable mandates peaked at 37 states, but current laws will leave only 13 states with such mandates after 2026[7]
- In 2018 only 11% of new wind and solar generation was mandate based[8]. Renewables now compete with conventional power plants, and 80% of new power plant construction over the last four years has been renewable[9]
- Northeastern states with high renewable power mandates currently only generate about 4% of their power from renewable sources[7] making up the difference by buying energy credits from other states

Caesar Rodney Institute
Center for Energy & Environment
420 Corporate Blvd.
Newark, DE 19702
WWW.CaesarRodney.org

**Broken promises on consumer protection**[10]

The first RPS bill was passed in 2007 with a major amendment in 2010. Both bills had bipartisan support as large energy users were exempted to keep high paying union jobs in Delaware, and consumer protection was included in the form of a cost cap on electric bills. The protection was needed for both the poorest among us, and to protect jobs.

There was recognition it would be difficult to calculate externality benefits such as less air pollution that would offset the premium cost of wind and solar power at the time so the cost cap was set at 3% to allow for those benefits. It was also recognized the premium cost for wind and solar would likely fall with time as it has in dramatic fashion. The job of writing the cost cap calculation formula was given to the Public Service Commission who had regulatory authority over the state's public utilities, and had the experience of balancing electric industry cost, reliability, and the environment. Any freeze of the RPS due to costs rising over 3% would be done in consultation with DNREC.

Normally it is expected regulations will follow legislation by six months to a year. In this case it took six years before the first cost cap calculation was ever made, and nine years before any honest calculation was made by which time the PSC determined costs had risen by 19%, and that didn't include the cost of the Green Energy Fund grant program. I estimate, and no one has disputed the calculation, the cost cap was most likely exceeded by Delmarva Power in 2013. Both the Delaware Electric Cooperative, and the municipal electric utilities have met comparable standards and have stayed under the cost cap.

So what happened at Delmarva? To be blunt single legislators, DNREC, the Governor, and the Renewable Energy Task Force members, all influenced Delmarva energy credit purchase decisions. Delmarva entered into contracts without adequately allowing for a range of possible impacts on the cost cap. In 2011, when premium costs were at their peak for wind and solar, Delmarva signed long term contracts for three out of state wind projects, and the Dover Sun Park instead of moving more slowly to take advantage of falling costs like other utilities in Delaware, and utilities in other states. Twenty other states' have cost caps and only one other state exceeded its cost cap (Ohio)[11]. Also in 2011 the Qualified Fuel Cell Project tariff was approved to support the Bloom Energy production plant in Newark with DNREC support in initiating the project, supporting it being declared renewable even though it uses natural gas, and finally allowing double counting of energy credits to justify the high cost of the project. Solar energy credit auctions added more cost. All of these expensive options came on line in 2012 and 2013. By 2032 all these contracts will end after Delmarva Power customers have paid about $1.7 billion dollars in premium charges.

Delmarva Power RPS Contract Cost 2012 to 2032 - $ millions

| **Contract** | **Yearly Cost** | **End Date** | **Life Cost** |
|---|---|---|---|
| Bloom Fuel Cell | $35 first 15 years | 2027 | $525 |
| Bloom Fuel Cell | $24 last 5 years | 2032 | $120 |
| 3 PA wind projects | $20 first 8 years | 2020 | $160 |
| 3 PA wind projects | $16 last 7 years | 2027 | $112 |
| Dover Sun Park | $2.5 | 2032 | $50 |
| First SREC auction | $1.6 | 2032 | $33 |
| Total 2011 to 2012 contracts | $59 | 2032-2038 | **$1,000** |

| | | | |
|---|---|---|---|
| 2013-2019 SREC auctions | $5 | 2033 to 2039 | $100 |
| Spot market solar | $19 | 2032 | $380 |
| Spot market wind | $11 | 2032 | $220 |
| Total RPS thru 2032 | | | **$1,700** |

Note: spot market estimates, and long term cost of the Dover Sun Park, and three PA wind projects, are based roughly on the 2016 Delmarva IRP Table 8 and 9, page 73

Why has it taken so long to calculate the cost cap? Unfortunately, The PSC delegated the responsibility for writing the cost cap calculation to DNREC. DNREC is a renewable energy advocate with no responsibility for electric cost or reliability. DNREC wrote, and withdrew four different versions of the regulation and the first three versions included the fuel cell project cost. The final version, ignoring the fuel cell project, including distribution and transmission cost in the divisor, and subtracting exaggerated externality costs that were used to justify the 3% allowable rise in electric costs was finally made in 2016. Viola, the cost cap was not exceeded. The Public Advocate, the PSC staff, and CRI opposed the final regulation.

A lawsuit by the Public Advocate eventually sent this responsibility back to the PSC after a Superior Court decision. It took another three years, including another lawsuit loss by DNREC and DNREC refusal to cooperate with the PSC, for the PSC to complete the calculation that led to a freeze order over the shocking 19% result. DNREC sued yet again to stop the freeze, and won a stay to delay a court decision that runs out February 1. It has been stated by Senator Hansen SB33 needs to be rushed to end the suit. Unsaid is DNREC may lose the suit again.

DNREC has had a heavy hand in breaking the consumer protection process, and in hiding the true cost from the public. Passing SB33 rewards DNREC for their obstruction by making sure there will never be a freeze in the RPS program regardless of the cost.

**The proposed new consumer protections will not work**

Utilities must buy energy credits from wind and solar projects to comply with REPSA, and that cost is what is added to electric bills. If there are not enough available energy credits the utility can pay a fee to DNREC called an Alternative Compliance Payment (ACP). A high ACP cap was designed to encourage utilities to find enough lower priced energy credits. SB33 turns the ACP into a cost cap mechanism claiming to set the ACP at a low enough level that it will send a price signal keeping credit cost down.

However, SB33 sets the ACP price so high it will be ignored as a market signal. Recently solar credits have sold for $10 to $35 each, but the proposed ACP is $150 and will be locked in for fifteen years no matter how low the cost of renewable energy falls. Delmarva has used discretionary authority to cap its energy credit auction purchases at $50. To offer any protection the ACP should start at no more than $50 and should be reduced automatically each year. Maryland passed a similar program, started with a $100 ACP, and reduced the number yearly to $22 by 2030.

Caesar Rodney Institute
Center for Energy & Environment
420 Corporate Blvd.
Newark, DE 19702
WWW.CaesarRodney.org

**A freeze will have limited impact on in state renewable energy expansion in Delaware**

Delaware has low wind speeds so only solar is likely to be used here. The cost of installing utility scale solar projects has fallen 90% over the last decade, and is now comparable to building conventional power plants. No subsidies, such as the sale of energy credits are needed. If a project is located in a utilities service area regional transmission fees are avoided which actually means these projects can lower cost compared to buying power from the regional grid.

Small scale projects for residential and small business use cost four times as much as large scale projects and are not a competitive source of power. Solar module price s have fallen steadily over the last four years, but the installed cost of small systems have not. Small scale projects receive a 26% federal tax incentive, a generous, upfront state Green Energy Fund grant, and any excess power is purchased by the power company at full retail cost. With so many subsidies, installers have not had much pressure to lower the installed price. It has been found small systems will sell if there is a six to seven year payback. Without energy credits the other subsidies result in a 6.7 year payback, and a 13% return in investment that beats just about any other currently available low risk investment option (see spreadsheet attached).

The sale of solar energy credits over a twenty year period also subsidized small scale solar projects. These contracts have not been available for the last year and a half since the PSC stopped energy credit auctions. DNREC increased the size of Green Energy Fund grants to compensate for the lost energy credit income and that has worked. Consumers have a hard time understanding the energy credit system, and when offered upfront money instead of spreading it over twenty years most consumers prefer the upfront money even when they receive half the present value of the energy credits.

The bottom line is the solar industry will do just fine without energy credits, or even without a REPSA mandate.

**Renewable Portfolio Standard trends**

Renewable mandates peaked at 37 states, but current laws will leave only 13 states with such mandates after 2026. In 2018 only 11% of new wind and solar generation was mandate based. Renewables now compete with conventional power plants, and 80% of new power plant construction over the last four years has been wind or solar powered. REPSA style mandates are last decades' solution to reduce carbon dioxide emissions.

Northeastern states have been raising their mandates, but the increases are hypocritical. These same states are currently only generating about 4% of their power from wind and solar sources. They make up the difference required by high mandates by buying energy credits from other states. For example, Delaware's current mandate requires 21% of electric demand must be renewable, but in state generation is only 2% from solar with another 3% from non-renewable fuel cells. The rest of the energy credits come from out of state projects funded by Delaware electric customers resulting in exporting jobs to other states.

Virginia just moved to a Clean Energy Standard[12] to encourage existing nuclear and hydro power, and innovative energy sources. Every administration since President Carter has supported alternative energy research, and the Biden Administration is expected to accelerate that effort. The research pipe line is full of ideas on how to use carbon dioxide capture, hydrogen and nuclear as fuel, energy efficiency, smart grids, demand side management, converting demand from fossil fuels to electricity, and hybrid generation and storage options. These options have an extra benefit of operating essentially all the time to protect electric reliability.

**Conclusion**

SB33 ends consumer protections that were never enforced because of obstruction by DNREC. The bill rewards DNREC by legislating everything they want to continue avoiding a freeze in the REPSA mandate no matter how high cost to electric consumers rise. Expanding the mandate to 40% threatens electric reliability as reported by our regional grid manager, and as shown by real world experience. REPSA style regulations are last decades' solution to carbon dioxide emission reductions. If energy policy is to be changed at all we need to consider a Clean Energy Standard that makes room for new sources that reduce emissions while being available all the time.

David T. Stevenson
Director, Center for Energy & Environment
Caesar Rodney Institute
e-mail: DavidStevenson@CaesarRodney.org
Phone: 302-236-2050

Notes

1) Renewable Energy World, "PJM Grid Operators: We Can Handle 30 Percent Renewable Energy Integration"' https://www.renewableenergyworld.com/articles/2014/03/pjm-grid-operators-we-can-handle-30-percent-renewable-energy-integration-and-heres-how.html
2) Forbes, "Why California Climate Policies are causing electric blackouts", 8/15/2020, https://www.forbes.com/sites/michaelshellenberger/2020/08/15/why-californias-climate-policies-are-causing-electricity-black-outs/?sh=601afcab1591
3) Power Magazine, "Texas impending reliability issues with wind power", 9/19/2019, https://www.powermag.com/texas-impending-reliability-issues-with-wind-power/
4) EIA's residential energy consumption survey found in 2015 that "about one in five households reported reducing or forgoing basic necessities like food and medicine to pay an energy bill.", Green Energy Mandates Are Making Poor People Poorer, Climate Change Dispatch, May 2018, https://climatechangedispatch.com/green-energy-making-poor-people-poorer/
5) MD Code Annotated Public Utilities § 7-705(b)(2)(i)1. & 2..
6) US Energy Information Agency Electric Power Monthly, https://www.eia.gov/electricity/monthly/
7) Caesar Rodney Institute, "Energy Trends", https://www.caesarrodney.org/cri-focus-area/Energy-Trends.htm
8) Wood Mackenzie, "How the US Solar Industry Will Weather the ITC Phasedown", https://www.greentechmedia.com/articles/read/how-the-us-solar-industry-will-weather-the-itc-phasedown?utm_medium=email&utm_source=Daily&utm_campaign=GTMDaily#gs.aeaijz
9) US Energy Information Agency projected new electricity capacity additions for 2021, https://www.eia.gov/todayinenergy/detail.php?id=46416

10) Much of the following is based on personal involvement over the last decade in commenting formally on cost cap regulations, as a consultant to the Public Advocate on SREC auctions, as an intervener in PSC dockets, and as a co-plaintiff in a Superior Court case
11) National Conference of State Legislatures, Renewable Portfolio Standards by state, https://www.ncsl.org/research/energy/renewable-portfolio-standards.aspx
12) Virginia Clean Energy Act, https://lis.virginia.gov/cgi-bin/legp604.exe?201+sum+SB851

Caesar Rodney Institute
Center for Energy & Environment
420 Corporate Blvd.
Newark, DE 19702
WWW.CaesarRodney.org

**Solar Panel Financial Analysis - Average Residential System 2021**

| | | | | | |
|---|---|---|---|---|---|
| Electricity Cost $/KWh = | $ 0.1400 | SREC Value = | $0 (First 10 years) / $ - (second 10 yrs.) | System Cost = | $ 20,520 |
| Electric usage, KWh/yr = | 11750 | First year solar KWh/yr = | 9000 | | |
| Net System $/Watt = | $ 2.85 | System Size = | 7200 | Inverter Replacement Cost = | $ 1,920 |

| Year | System Cost | State Rebate | Federal Tax Credit | Electricity Price | Utility Cost No Solar | Solar KiloWatth/yr | With Solar | Savings | SREC Value | Inverter Replacement | Annual Cash Flow | Cumulative Cash Flow |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 2016 | $ (20,520) | $ 5,040 | $ 5,335 | $ 0.1400 | $ 1,645 | 9000 | $ 420 | $ 1,225 | $ - | | $ (8,919.80) | $ (8,919.80) |
| 2017 | | | | $ 0.1428 | $ 1,678 | 8955 | $ 426 | $ 1,252 | $ - | | $ 1,251.60 | $ (7,668.20) |
| 2018 | | | | $ 0.1457 | $ 1,711 | 8910 | $ 433 | $ 1,279 | $ - | | $ 1,278.89 | $ (6,389.31) |
| 2019 | | | | $ 0.1486 | $ 1,746 | 8866 | $ 439 | $ 1,307 | $ - | | $ 1,306.88 | $ (5,082.43) |
| 2020 | | | | $ 0.1515 | $ 1,781 | 8821 | $ 445 | $ 1,336 | $ - | | $ 1,335.59 | $ (3,746.84) |
| 2021 | | | | $ 0.1546 | $ 1,816 | 8777 | $ 451 | $ 1,365 | $ - | | $ 1,365.03 | $ (2,381.81) |
| 2022 | | | | $ 0.1577 | $ 1,853 | 8735 | $ 457 | $ 1,395 | $ - | | $ 1,395.21 | $ (986.61) |
| 2023 | | | | $ 0.1608 | $ 1,890 | 8690 | $ 463 | $ 1,426 | $ - | | $ 1,426.14 | $ 439.54 |
| 2024 | | | | $ 0.1640 | $ 1,927 | 8646 | $ 470 | $ 1,458 | $ - | | $ 1,457.85 | $ 1,897.39 |
| 2025 | | | | $ 0.1673 | $ 1,966 | 8603 | $ 476 | $ 1,490 | $ - | | $ 1,490.35 | $ 3,387.74 |
| 2026 | | | | $ 0.1707 | $ 2,005 | 8560 | $ 482 | $ 1,524 | $ - | | $ 1,523.64 | $ 4,911.38 |
| 2027 | | | | $ 0.1741 | $ 2,045 | 8517 | $ 488 | $ 1,558 | $ - | | $ 1,557.76 | $ 6,469.14 |
| 2028 | | | | $ 0.1776 | $ 2,086 | 8475 | $ 494 | $ 1,593 | $ - | | $ 1,592.70 | $ 8,061.84 |
| 2029 | | | | $ 0.1811 | $ 2,128 | 8432 | $ 499 | $ 1,628 | $ - | | $ 1,628.50 | $ 9,690.34 |
| 2030 | | | | $ 0.1847 | $ 2,171 | 8390 | $ 505 | $ 1,665 | $ - | | $ 1,665.15 | $ 11,355.49 |
| 2031 | | | | $ 0.1884 | $ 2,214 | 8348 | $ 511 | $ 1,703 | $ - | | $ 1,702.69 | $ 13,058.18 |
| 2032 | | | | $ 0.1922 | $ 2,258 | 8306 | $ 517 | $ 1,741 | $ - | | $ 1,741.13 | $ 14,799.31 |
| 2033 | | | | $ 0.1960 | $ 2,305 | 8265 | $ 525 | $ 1,780 | $ - | | $ 1,780.48 | $ 16,579.78 |
| 2034 | | | | $ 0.2000 | $ 2,349 | 8224 | $ 529 | $ 1,821 | $ - | | $ 1,820.76 | $ 18,400.54 |
| 2035 | | | | $ 0.2040 | $ 2,396 | 8182 | $ 534 | $ 1,862 | $ - | | $ 1,861.99 | $ 20,262.53 |
| 2036 | | | | $ 0.2080 | $ 2,444 | 8141 | $ 540 | $ 1,904 | | $ (1,920.24) | $ (16.05) | $ 20,246.48 |
| 2037 | | | | $ 0.2122 | $ 2,493 | 8101 | $ 546 | $ 1,947 | | | $ 1,947.38 | $ 22,193.87 |
| 2038 | | | | $ 0.2164 | $ 2,543 | 8060 | $ 551 | $ 1,991 | | | $ 1,991.58 | $ 24,185.44 |
| 2039 | | | | $ 0.2208 | $ 2,594 | 8020 | $ 557 | $ 2,037 | | | $ 2,036.80 | $ 26,222.24 |
| 2040 | | | | $ 0.2252 | $ 2,646 | 7980 | $ 563 | $ 2,083 | | | $ 2,083.06 | $ 28,305.30 |
| Total | $ (20,520) | $ 5,040 | $ 5,335 | | | 212,004 | | $ 40,879 | $ - | | $ 28,305.30 | 13.3% |

IRR= 13.3% Payback =5.7 Years

# Information to Accompany Public Comment – Natural Resources Committee


Dr. Cory Budischak

Assistant Professor, Temple University

Hockessin Resident

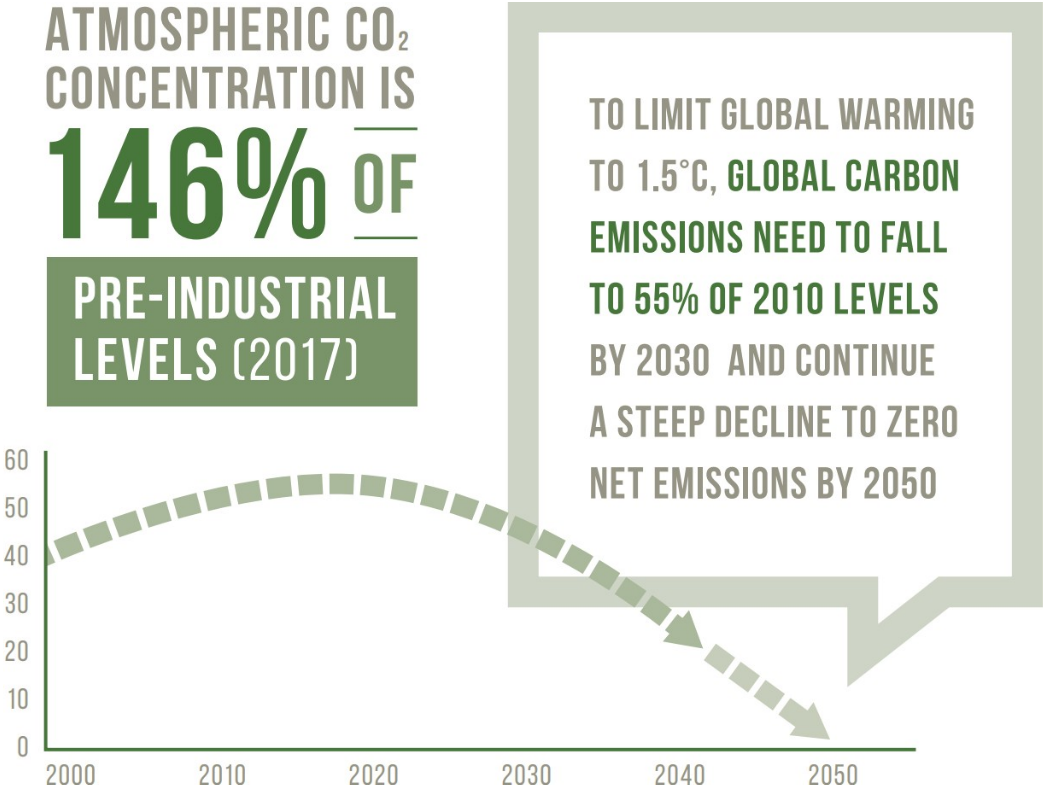
1-19-21

cbudischak@gmail.com

I support SB33 as a small step in the right direction, but we must do more to create a clean and equitable energy system.

# Why is SB33 a small step?

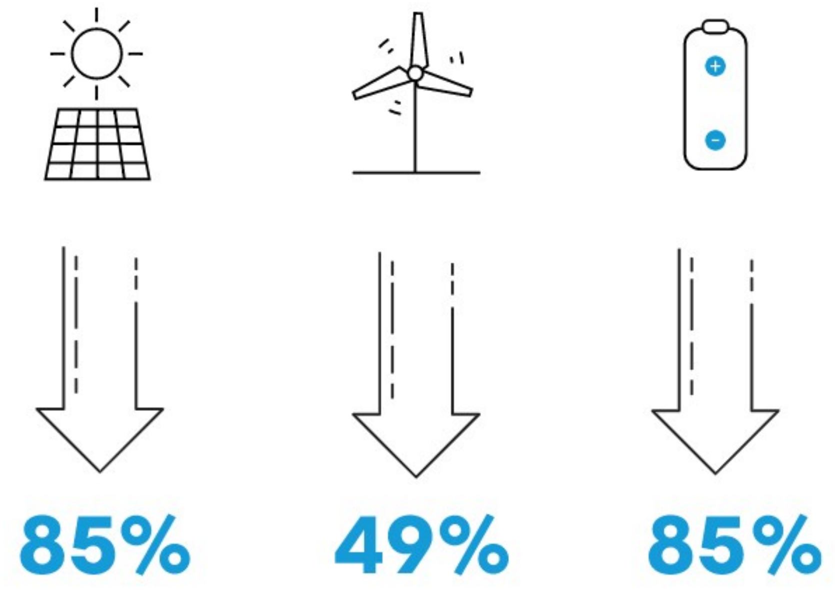
# The time for action is now




https://www.un.org/sustainabledevelopment/climate-change/

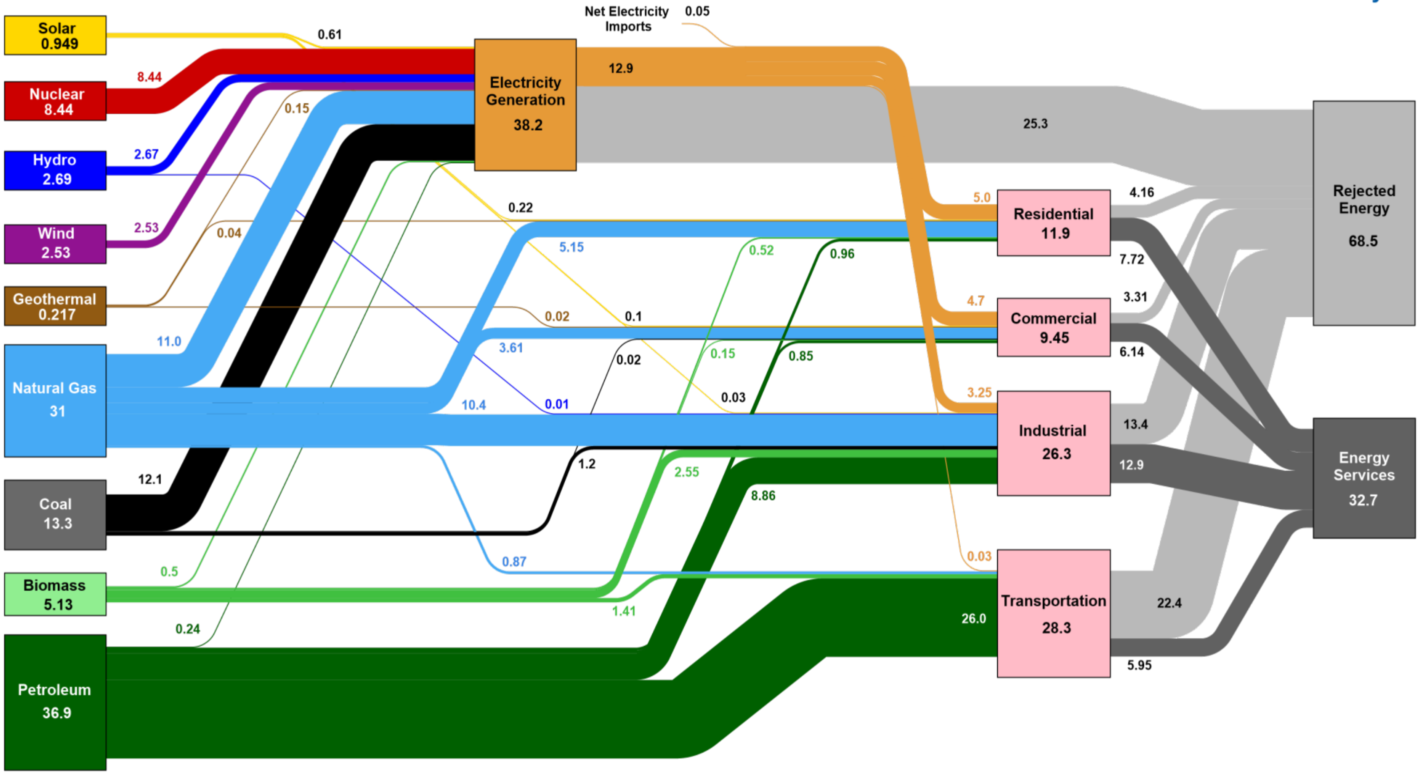
# Technology cost declines since 2010

*(Source: BloombergNEF)*



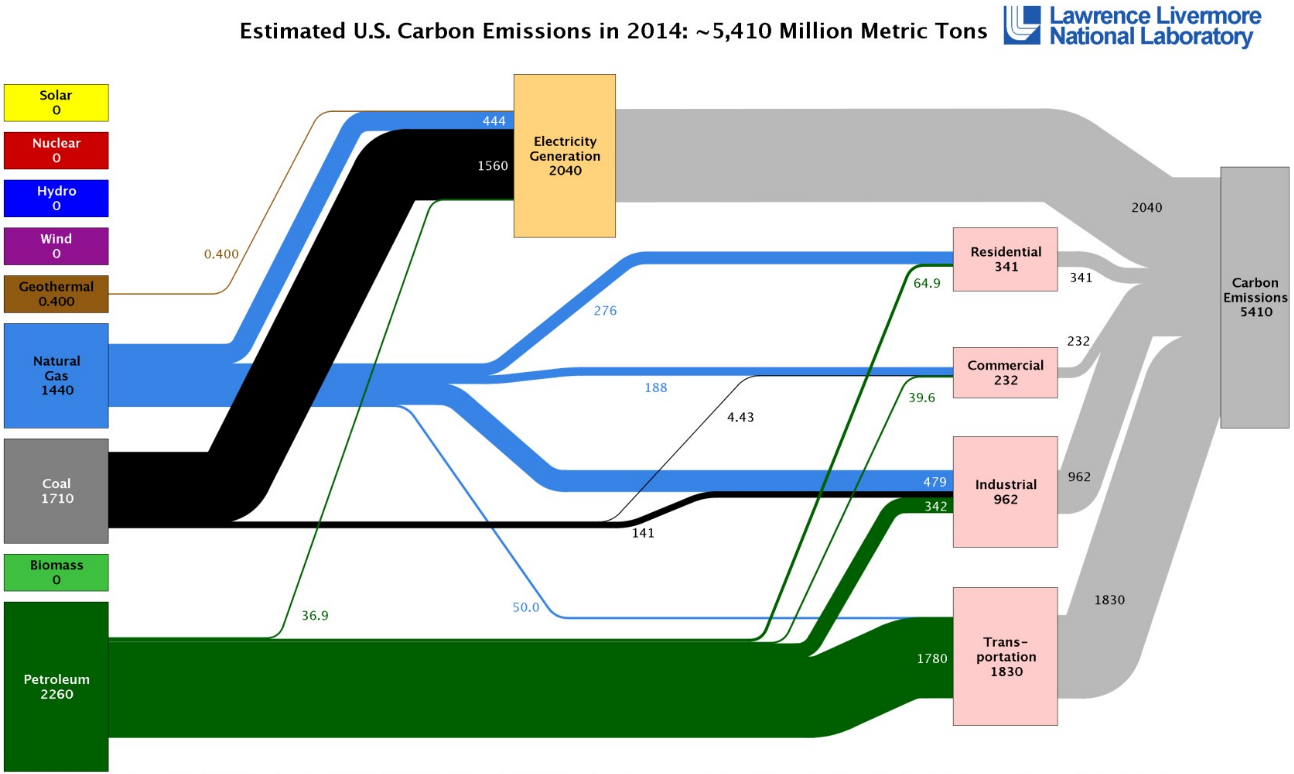
## Estimated U.S. Energy Consumption in 2018: 101.2 Quads

Lawrence Livermore National Laboratory




Source: LLNL March, 2019. Data is based on DOE/EIA MER (2018). If this information or a reproduction of it is used, credit must be given to the Lawrence Livermore National Laboratory and the Department of Energy, under whose auspices the work was performed. Distributed electricity represents only retail electricity sales and does not include self-generation. EIA reports consumption of renewable resources (i.e., hydro, wind, geothermal and solar) for electricity in BTU-equivalent values by assuming a typical fossil fuel plant heat rate. The efficiency of electricity production is calculated as the total retail electricity delivered divided by the primary energy input into electricity generation. End use efficiency is estimated as 65% for the residential sector, 65% for the commercial sector, 21% for the transportation sector and 49% for the industrial sector, which was updated in 2017 to reflect DOE's analysis of manufacturing. Totals may not equal sum of components due to independent rounding. LLNL-MI-410527

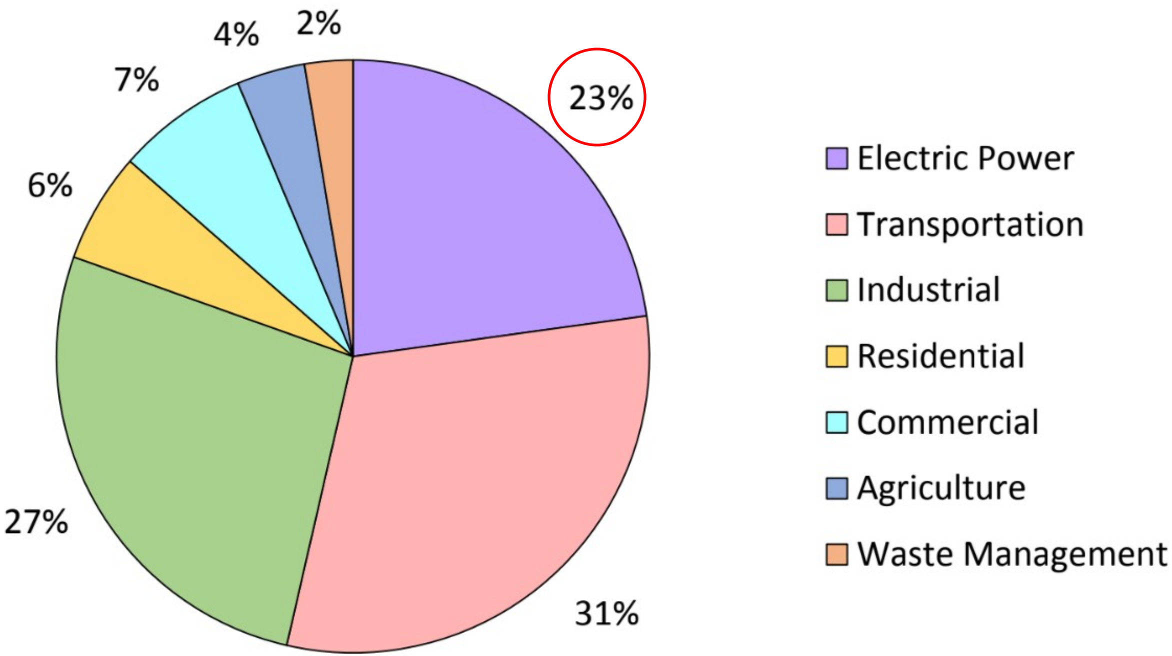
Electricity is an important piece of our energy system, but not the only piece.




Source: LLNL 2015. Data is based on DOE/EIA-0035(2015-03), March, 2015. If this information or a reproduction of it is used, credit must be given to the Lawrence Livermore National Laboratory and the Department of Energy, under whose auspices the work was performed. Carbon emissions are attributed to their physical source, and are not allocated to end use for electricity consumption in the residential, commercial, industrial and transportation sectors. Petroleum consumption in the electric power sector includes the non-renewable portion of municipal solid waste. Combusition of biologically derived fuels is assumed to have zero net carbon emissions – the lifecycle emissions associated with producing biofuels are included in commercial and industrial emissions. Totals may not equal sum of components due to independent rounding errors. LLNL-MI-410527

Electricity is only 38% of the United States' total energy use.

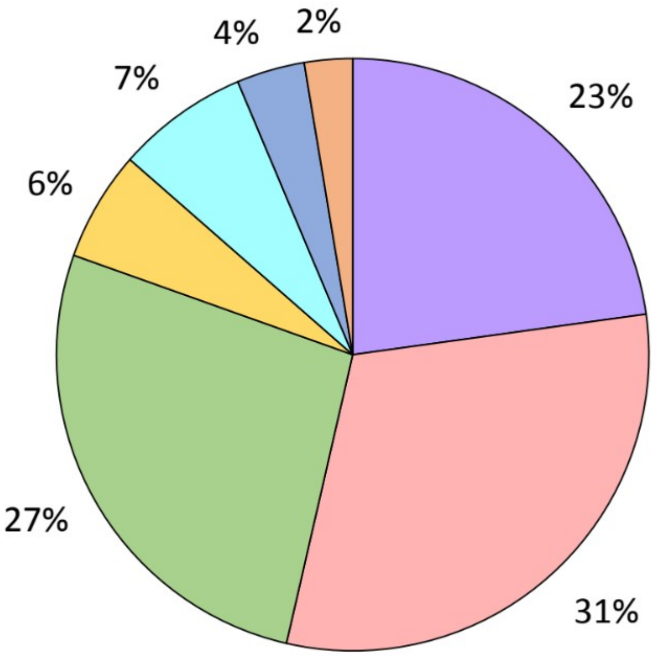
# Breakdown of gross GHG Emissions in DE By Sector

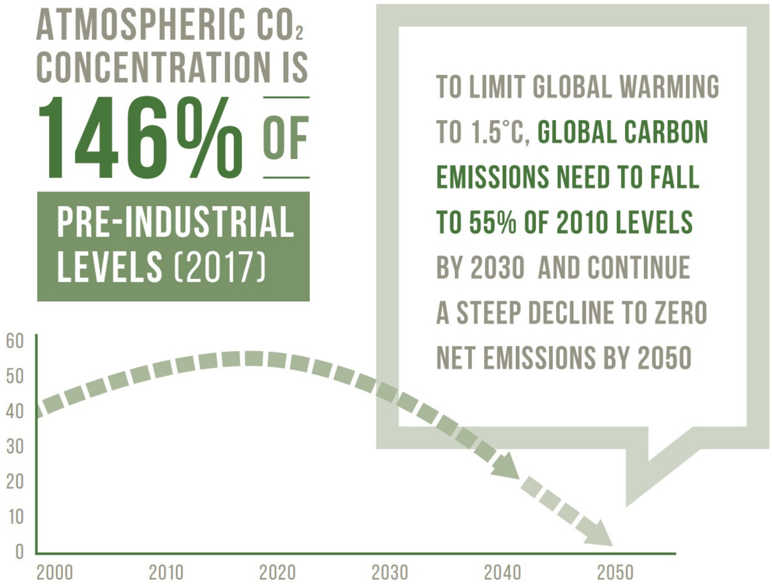



Electricity is only 23% of Delaware's total greenhouse gas emissions.

From *Delaware's 2016 Greenhouse Gas Emissions Inventory*

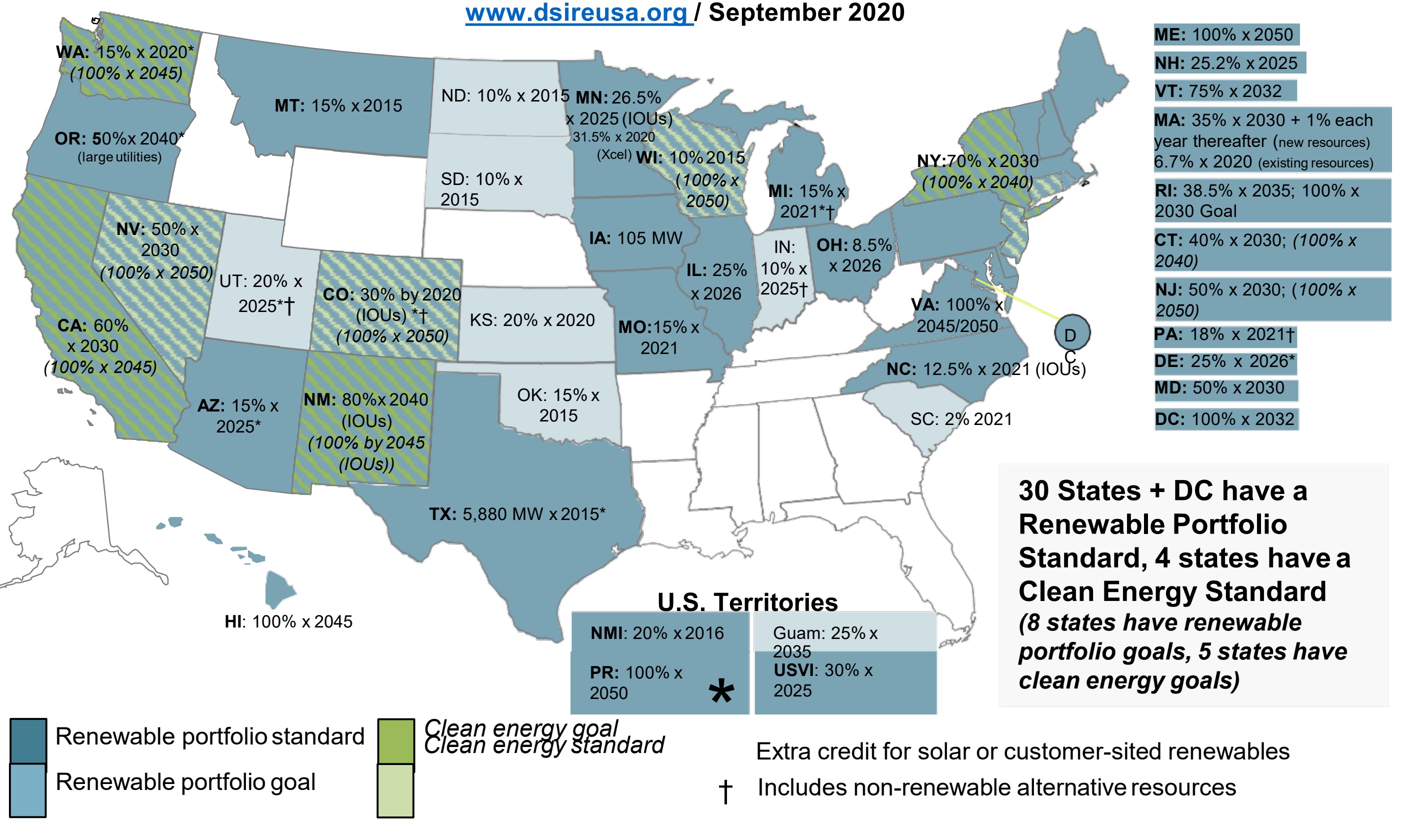
SB33: 28% ***electricity*** from renewable sources by 2030
Total Emission Decline in 2030: 28%*23% = ~6.5%
According to UN: Need 55%!



# Renewable & Clean Energy Standards

www.dsireusa.org / September 2020




## Other regional goals:

MD: 50% by 2030

NJ 50% by 2030; 100% by 2050

PA: 18% by 2021

VA: 100% by 2045

NY: 70% by 2030; 100% by 2040

# What next? A 100% RPS? NO!

# Why not 100% RPS

1. Doesn't address all areas of Greenhouse Gas emission (only 23% in Delaware) → Less cost effective because other to lower GHG may be cheaper (i.e. electric vehicles, switching away from oil furnaces, etc.)
2. Not equitable → an aggressive RPS may increase electricity prices which disproportionately burdens the poor.

The RPS was a good tool for small goals to get the technology/industry off the ground, but is not the tool for large scale change. It is only used because it is known and it is an easy lift politically.

# So what do we do next?

# So what do we do next?

1. Support strong federal policy that supports a system wide approach to aggressively reducing GHG emissions equitably such as:

   **Sens. Coons, Flake introduce landmark bipartisan legislation to put money in the pockets of working families by pricing carbon pollution**

   The Energy Innovation and Carbon Dividend Act will help to create 2.1 million net new jobs and reduce U.S. carbon emissions by 33% within a decade

2. Support Delaware policy to enable Delaware to quickly/cost effectively, and equitably act such as:
   1. Community Solar Legislation
   2. Offshore Wind Legislation/Regulations/Bids

I support SB33 as a small step in the right direction, but we must do more to create a clean and equitable energy system.