

PINELANDS CLIMATE COMMITTEE MEETING

This meeting was conducted remotely

All participants were present via Zoom conference

The public could view/comment through Pinelands Commission YouTube link:

<https://www.youtube.com/c/PinelandsCommission>

Meeting ID: 844 3799 7322

May 27, 2022

Immediately following the 9:30 a.m. Policy & Implementation Committee Meeting

MINUTES

MEMBERS IN ATTENDANCE: Chairman Mark Lohbauer, Alan W. Avery, Jr., and Edward Lloyd

MEMBERS ABSENT: Jerome H. Irick

OTHER COMMISSIONERS PRESENT: Chair Laura E. Matos, Theresa Lettman

STAFF PRESENT: Susan R. Grogan, Stacey P. Roth, Charles Horner, Ed Wengrowski, Ernest Deman, Jessica Lynch. Paul Leakan, and Dawn Holgersen. Also present was Janice Venables, with the Governor's Authorities Unit

1. Call to Order

Chairman Lohbauer called the Pinelands Climate Committee meeting to order at 11:33 a.m.

2. Adoption of minutes from the February 25, 2022 Pinelands Climate Committee meeting

Commissioner Lloyd moved the adoption of the minutes of the February 25, 2022 Committee meeting. Commissioner Avery seconded the motion. All voted in favor.

3. Discussion of ongoing Pinelands Commission office initiatives

Local Government Energy Audit

Chairman Lohbauer said he distributed a memo regarding the energy audit of the Commission facilities. He apologized that he failed to add some remarks that he wanted to make as exceptions to the audit report. He said that he will outline them and suggested the Committee can take action on them this morning or at the next meeting.

He said that it is important that the Climate Committee take a stand regarding the audit report. He said the Committee's charge is to review potential climate change in the Pinelands and to mitigate impacts. He said that anything pertaining to energy consumption at the Commission

facilities would have an impact. He also suggested the Personnel and Budget (P&B) Committee review the reports for fiscal impacts.

Commissioner Lloyd expressed disappointment in the reports. He said that it should have included the costs and savings of implementing the suggested actions. He asked if there were anything that could be given to the P&B Committee for evaluation of costs and savings.

Chairman Lohbauer agreed with Commissioner Lloyd's observation and suggested that it is a concern for the P&B Committee. He said that the Climate Committee should focus on mitigation issues and present opinions to the full Commission regarding climate impacts.

Ms. Grogan suggested the Committee identify things to discuss at the next P&B Committee meeting. She said that Jessica Lynch, the Commission's Business Services Manager, will try to gather some financial information to support the discussion.

Chairman Lohbauer described the first exception regarding the recommendation of installing high efficiency air conditioning units for the Richard J. Sullivan (RJS) Center. He said the complex has a bifurcated system for heating and cooling. He suggested the use of a heat pump system for the facility's heating and cooling needs.

He said the next point is the recommendation of installing a heat pump system for heating. He said that instead of considering heating and air conditioning separately, a single system should be used for both heat and air conditioning and relies on electricity that can be derived from a renewable resource rather than fossil fuel.

Chairman Lohbauer said the third exception is with the recommendation not to pursue on-site generation of electricity. He said the report suggests that the facility lacks the capacity for such activity and does not have the kind of demand for electricity that would warrant the expenditure of money on that type of system. He reiterated that the Committee should not be focused on the costs involved and instead consider the appropriate answer about the use of renewable energy on the campus. He suggested that a study be made by a solar energy expert to determine whether a solar photovoltaic system could be installed on-site to generate enough electricity to avoid the purchase of fossil fuel generated electricity.

He said the next exception talks about combined heat and power (CHP). He said that the CHP system is one that involves burning fuel on-site to generate electricity and heat. He said the report does not recommend the use of a CHP system. He said that the Committee should make a comment to recommend against the consideration of a CHP system as they consume fossil fuel or wood fuel for operation, and that is contrary to the Committee's mission. He said since it was an option that was researched, it may be revisited, and it would be wise for the Committee to recommend against it.

Chairman Lohbauer said the fifth exception pertains to the energy purchasing and procurement strategies for the RJS Center. He said the recommendation is to examine other possible sources other than the standard utility to see if electricity could be purchased at a lower cost. He said that the Commission should investigate this if the facility is unable to generate its own renewable energy on-site. He said that the focus should be on options for electricity that is supplied from a renewable energy source, not on the lowest cost.

He said that the sixth exception is regarding the recommendation to review retail natural gas supply options for the RJS Center to find a supplier at a lower cost. He said the Commission should eliminate systems that are fueled by natural gas and replace them with electric powered alternative systems.

Chairman Lohbauer said the final exception is with the recommendation to install high efficiency air conditioning units in Fenwick Manor and other outbuildings. He said he also recommends the use of a heat pump system, as he outlined for the RJS Center.

Commissioner Lloyd said that he agrees that the Committee's focus should be on the climate perspective of these recommendations. He said, while there is a benefit to climate-friendly energy solutions, he is uncertain whether they could all be done within the constraints of a small agency such as the Commission.

Chairman Lohbauer suggested a deeper analysis from an expert that would not just focus on the costs of the activities. He stated again that cost is not a priority for this Committee. He suggested that the advice the Committee gives to the full Commission should only be on the climate impacts of the activities. He said the Commission would decide based on all factors.

He suggested that, because the reports call for conservation of energy use, which has a net benefit to the climate, the Committee should endorse the reports with exceptions.

Commissioner Lloyd inquired as to when economics will be considered in the process. Chairman Lohbauer replied that it should be debated at the Commission level, in front of the public.

Chairman Lohbauer said that the Commission should not refuse to look at renewable energy because of its economics. He said the issue is how to reduce the Commission's carbon footprint.

Commissioner Avery suggested that the audit report is a merely starting point. He mentioned that the RJS Center, dedicated in 2001, has systems that are going to be due for major changes or replacement. He said that the Committee should make sure that it is going down the path to promote and budget for more climate-conscious items instead of similar replacements.

He said there are energy consultants that would look at what opportunities there are for solar energy and its costs. He cautioned that a consultant should be found that will start from an efficiency perspective. He explained that his opinion is based on his experience with an energy audit that was performed for the Ocean County administrative buildings.

Chairman Lohbauer said that he understands the limitations the Commission may have to implement changes. He commented that it would make sense for the Committee to state climate-oriented goals when evaluating these kinds of policy issues. He said that things may not be resolved quickly, but as Commissioner Avery mentioned, it needs to be kept in mind for long-range planning for replacing systems. He said that the P&B Committee can help determine what can be practically achieved. Commissioner Lloyd concurred.

Ms. Grogan said staff will gather information for a long-range plan while being mindful of budget issues. She suggested the Commission might want to consider setting up a special reserve account for climate-related improvements.

She said that while she understands the disappointment with the audit reports, it was a necessary step not only to identify possibilities but also to make the Commission eligible for grants and loans to help offset the costs. She also said that Ms. Lynch is working to get more information as to what the Commission could be eligible for.

Chairman Lohbauer mentioned that his revised memo, with the added exceptions, was provided to Ms. Grogan. He suggested to have the memo circulated to Committee members and to discuss it again at the next meeting.

In response to Commissioner Lloyd's question regarding availability of funding for state agencies, Ms. Grogan said that staff were advised that funding may be available but has not yet received any details.

Ms. Grogan said that the next Committee meeting is in July. She also said that the next P&B Committee meeting is in June. She said that there will be opportunities to discuss the matter further during the budget process. She said the budget is expected to be presented to the full Commission at the September meeting.

Chairman Lohbauer again suggested the discussion be deferred to the July meeting. He stressed the importance of the Committee's making a recommendation to the full Commission regarding the audit report from a climate perspective.

Chairman Lohbauer mentioned his first point in the revised memo being a recommendation for the Commission to do a study, using an appropriate expert, to determine how the Commission could develop renewable power on-site.

His second recommendation is to install an on-site power storage system to allow for times when generation is inadequate to meet demand, in lieu of an emergency generator which are generally powered by fossil fuels.

He said his third recommendation is to convert separate space heating and air conditioning to a single heat pump system to eliminate the use of fossil fuels for heating and cooling.

Chairman Lohbauer said his fourth recommendation is to convert the water heater to an electric system to again eliminate the use of fossil fuels.

He said his fifth recommendation is to install an electric vehicle charging station to serve the public as well as to charge any electric Commission vehicles that may be acquired.

He said his final recommendation is to purchase electric vehicles when replacing Commission vehicles.

Electric vehicle charging station and vehicle purchasing

Ms. Lynch delivered a presentation on installing an electric vehicle charging station and purchasing electric vehicles (*attached to these minutes*).

Ms. Lynch said the Commission currently owns five late-model gasoline vehicles. She reminded the Committee that the vehicles are not part of the state fleet and that the Commission is independently responsible for insuring and maintaining the vehicles.

She said that the vehicles are primarily used for field work by the Science and Regulatory Programs departments. She said they are also used for errands and transportation to meetings.

In response to Commissioner Lloyd's question about the Toyota Prius, Ms. Grogan indicated that the vehicle is not appropriate for field use. With the increase in remote meetings, the Prius is rarely used.

Ms. Grogan suggested that, since the Prius is underutilized, it should be sold and the Commission should purchase two new field use vehicles. She said that they would likely be pickups or sport utility vehicles (SUVs). She mentioned that in recent years, staff have used their own vehicles and received a mileage reimbursement. She said that the Commission would not want staff to put significant mileage on their vehicles; hence, the recommendation for purchase of additional vehicles.

Ms. Lynch listed the points to consider when deciding whether to purchase an electric or hybrid vehicle.

She said the first is installation of a charging station on-site. Next, she said the length of time for the vehicles to charge. She also mentioned the availability and location of charging stations in the field.

She said the next point is what level of charging station would be needed or available. She said another point being how long it would take for a vehicle to charge while in the field. She mentioned the question of staff needing to take the vehicle home.

She said another point is what vehicles would be available through State Contract. She mentioned the necessity of certain vehicle ground clearance for field use. Lastly, she stated the point of the possibility of the vehicles on State Contract not meeting the Commission's needs.

Ms. Lynch said that charging stations are great for the environment. She said that grants are available to offset a small portion of the cost. She mentioned that it was included in the Fiscal Year 2022 budget. She also said that a charging station would provide a service to the visiting public. She detailed the disadvantages of the charging station with the daily responsibility for charging the Commission vehicles and the consequences if the vehicles are not fully charged. She also mentioned the possible issue of monitoring and establishing priority for the Commission's use of the charging station before the public, and a payment structure for the public to pay for the use.

She explained the types of charging stations. She said that the level one can charge two to three miles per hour, level two can charge 10-20 miles per hour, and the DC fast charging that can charge 60-80 miles in 20 minutes. She said that there are currently three, level two charging stations within a 15-mile radius of the Commission offices. She mentioned the lack of charging stations in the Pinelands Area.

She said that staff often need to take Commission vehicles home in the evening in order to go directly into the field the next day. She said the Commission cannot pay to install a charging station at every employee's residence. Also, she said the Commission cannot assume the liability for electrical issues that may arise from the use of a charging outlet at an employee's residence.

In response to Commissioner Lloyd's question about home charging stations, Ms. Grogan said that she is not aware of anyone on the staff that has a charging station at home.

Chairman Lohbauer mentioned that the range of electric vehicles that could be purchased will likely exceed 200 miles, as much as 300 miles per charge. He said that would mean not having to charge every day.

Ms. Grogan said that the Commission would not be using the vehicles in a way that the typical commuter does, meaning they will be used to drive significant distances in the field, so it will add up quickly. She expressed concern with sending staff further away and not having an available charging station.

Ms. Lynch said that the fully electric vehicles currently available on state contract are the 2022 Nissan Leaf, which has five inches of ground clearance; the 2022 Chevrolet Volt, which also has five inches of ground clearance; and the 2021 Ford Mustang Mach-E, which also has five inches of ground clearance. She said that hybrid vehicles currently available are the 2022 Ford Escape, which has 7.3 inches of ground clearance and a 2021 Toyota Highlander, which has eight inches of ground clearance. She said that ideally, the Commission's field vehicles need nine inches of ground clearance.

She said that the state contract currently does not have a vehicle that would meet the Commission's needs. She said if there is an immediate need for a new vehicle, a request for quote can be created with the specifics that would be needed for the vehicle. She mentioned that the 2022 Jeep Sahara is a hybrid vehicle that would meet the Commission's needs. She said that a base model of this vehicle would cost \$53,000.

Ms. Grogan said the Commission will continue to explore various vehicle options and prices to see what will be available..

She also suggested the possibility of replacing the Commission's gas-powered lawnmower and other landscaping tools with electric options.

Chairman Lohbauer commented that Ford has an all-electric version of its F-150 pickup truck. He also mentioned that Rivian is a company that makes electric pickup trucks.

Commissioner Avery commented that some of the all-wheel drive vehicles that are all-electric tend to be high-end models. He mentioned Range Rover and Mercedes as examples.

Rain garden design and installation

Mr. Leakan said that the Commission entered into an agreement to work with the Rutgers Cooperative Extension for the design and installation of the rain garden, which will be placed in front of the RJS Center. He described the rain garden as a shallow depression filled with plants that captures stormwater.

He said a landscape architect provided the Commission with several designs, including the engineering and planting plans for plant types and placement.

He also said that the goal is to have 100% native Pinelands plants, which is a challenge. He also mentioned that the Commission is working with as many as eight different nurseries to obtain all of the necessary plants.

Mr. Leakan said that the intent is to have the project completed in June. He said it will take approximately three days to complete. He said the Commission will install a wayside panel to describe the rain garden and the plants it contains. He also said a webpage will be created outlining the benefits of rain gardens and will include the plans for the rain garden on-site and a list of native Pinelands plants.

4. Update on state initiatives

NJDEP's Protecting Against Climate Threats (PACT) rulemaking efforts

Ms. Grogan started by saying there are few updates. She said there were plans to meet with the New Jersey Department of Environmental Protection (NJDEP) to discuss their rulemaking process and progress on their protecting against climate threats effort. She said that meeting was rescheduled to June. She said the intent of the meeting is to avoid any potential conflict with Pinelands rules. She said that there should be an update available for the July meeting.

Forest Stewardship Task Force

Ms. Grogan said that Charles Horner, the Commission's Director of Regulatory Programs, provided an update at the Commission meeting regarding the Forest Stewardship Task Force. She said that the Commission has not received any further information. She said that it still not clear what the Commission's role may be in the Task Force.

2021 Solar Act and BPU Competitive Solar Incentive (CSI) Program

Ms. Grogan made note of the State's Solar Act with a highlighted section of interest. She said that it mentions the Commission and several of the management areas are specifically mentioned in that legislation. She said that the New Jersey Department of Agriculture (NJDA), NJDEP, and the Board of Public Utilities (BPU) are working together to draft the proposal.

She said that Stacey Roth, the Commission's Chief of Legal and Legislative Affairs, and Steven Simone, the Commission's Planning Specialist are following along with the process.

In response to a question from Chairman Lohbauer, Ms. Grogan clarified that the Commission received notice like every other stakeholder. She said the Commission was not invited to participate in a direct way. She said that staff attended the stakeholder meeting.

Ms. Roth said the Solar Act of 2021 was signed on July 9, 2021. She said that it is legislation designed to incentivize production of solar generation facilities in the State and directed the BPU to double the growth of existing solar power and solar programs by incentivizing up to 3,750 megawatts of generation by 2026. She said the goal is to add 750 megawatts every year.

She said that the BPU issued an order as of July 28, 2021, to implement these incentive programs, called the Successor Solar Incentive program (SUSI). She said the program consists of two tracks. She said one is administratively determined incentives that are designed for

community solar and net leader solar that produces less than five megawatts and that provides fixed incentives through renewable energy credits for every megawatt generated under the program. She said that the Subsection T Facilities program under the old Solar Act ended. She said there is an interim program for those facilities that could have been eligible under the former program.

Ms. Roth said that the straw proposal process began in March for the Competitive Solar Incentives (CSI) program that is being developed to address and incentivize construction of grid supply solar or net metered facilities greater than five megawatts. She said that NJDEP, BPU, and NJDA are the entities under the Solar Act that are working together to develop the incentive program. She said there was no discussion with the Commission and that act mentions siting requirements but does not directly involve the underlying siting of the facilities.

She said the Act incentivizes the construction of these facilities through a credit program. She said that the credit structure has yet to be determined. She said a large portion of the current discussion is about the siting criteria.

She said page seven of the bill includes a list of siting criteria. Facilities may not be sited in the Preservation Area, as it is delineated in the Pinelands Protection Act. She mentioned that the Pinelands Preservation Area District in the Pinelands Comprehensive Management Plan (CMP) is different from the Preservation Area. She said when the CMP was being determined, there was a realization that there were villages and the military bases (now the Joint Base MDL). She said these areas were ultimately designated as other management areas. She said that due to the way the siting criteria were delineated in the Act, and subsequently transferred to the development of the CSI program, there is an issue as to whether incentives can be received in this area.

Ms. Roth said there is a waiver process within the Act, which is also in the proposed stakeholder document. She said that it excludes the Forest Area, wetlands, a certain percentage of agricultural lands, Green Acres lands, and the Highlands Preservation Area. She said that if it can be demonstrated that a facility is going to be constructed on a former landfill or an existing impervious cover, an application can be submitted to BPU for a waiver of the siting criteria in order to be eligible for the incentive.

She said the comment period is closing at the end of the month and the BPU is still in the stakeholder process. She said that two virtual meetings were held on April 7th and 8th. She said the first meeting was a general overview of how the CSI program is envisioned to function. She said the second meeting was a discussion of siting criteria pertaining to agricultural land because there will be a limit of 2.5% that can be used for those facilities.

She said there may be issues regarding the program's consistency with the CMP. She said that the Commission is not part of the waiver process; therefore, staff has asked BPU to make clear in its rules that it does not have the authority to waive the CMP or to make determinations of compliance. She said the Commission will need to be inserted into the process in some way, such as in the Subsection T process where applicants had to obtain a letter from the Commission indicating whether a proposed facility could be sited in a way that is consistent with the CMP.

Ms. Roth said that regulations themselves are not currently available. She said the stakeholder proposal is available on the NJDEP and BPU websites. She said the proposal does not give many details in terms of how the program is going to be constructed. She said the discusses more about the act itself and how to form it into their proposal.

She said the next step would be for BPU staff to make a recommendation for a draft rule proposal. She said it is not certain whether another stakeholder process will occur.

Ms. Grogan said that the Commission will be preparing written comments to remind the entities of the rules in the CMP and to clarify terminology of some areas.

In response to Chairman Lohbauer's question as to whether the CMP rules could be waived, Ms. Roth clarified that the waiver that is mentioned is to allow a facility to receive incentives. She said it is not a replacement for land use and development standards. She said that with the Subsection T rules, NJDEP realized that there needs to be a consistency determination from the Commission.

Ms. Grogan said there was no formal role for the Commission during the first round of NJDEP's Community Solar pilot program. However, during the second round, after a Commission staff meeting with BPU, it was determined that it was necessary for the Commission to have input on projects in the Pinelands Area. This became part of the application process.

5. Discussion of FY2023 Climate Committee work plan

Ms. Grogan said there are six meetings for the upcoming fiscal year, and they are scheduled to be held every other month. She noted the goal to have the Committee focus on CMP amendments and to provide staff with specific amendments or topics to investigate and write language for the Committee to consider and recommend to the Policy & Implementation (P&I) Committee.

Resilience Action Plan for the Interagency Council on Climate Change

Ed Wengrowski, the Commission's Environmental Technologies Coordinator, reminded the Committee that the Commission was invited to participate in the New Jersey Interagency Council on Climate Resilience (NJIAC). He said the member agencies have recently been tasked with completing what is being called Resilience Action Plans (RAPs). He said the RAPs will be due from the agencies in October 2023. He said the Commission will be asked to incorporate in the action plan means by which the agency will address climate resilience in policies, programs, and decision making to be consistent with the 2021 New Jersey Climate Change Resiliency Strategy.

He said the NJIAC will provide a template through which the plan will be developed and will have a glossary to ensure uniformity among the agencies. He indicated there are at least 22 member agencies participating in the Council. He said the agencies have been split into several working groups. He said the Commission is assigned to the environmental systems and land use group, as well as NJDEP, NJDA, Department of State, Highlands Council, and the New Jersey Sports and Exposition Authority.

Mr. Wengrowski said the first meeting of the group will be held on June 2nd. He mentioned that there is no specific schedule other than the due date for the plan to be finalized. He said there will also be development of an interim resilience action plan based upon the discussion within the group.

He said the NJIAC will hold stakeholder webinars to include the public. He said the Council will share the template that will be used to develop the plans and allow for public feedback. He said after the feedback and interim plan, a draft final plan will be created and circulated among the Council, with the project being completed by October 2023.

He said that the Commission will be asked to share recommendations with the other agencies in the group, as they will do the same. He said staff will be looking to the Committee for feedback and guidance. He said there will be updates at the July meeting.

Chairman Lohbauer asked if those meetings will be open to the public. Mr. Wengrowski replied that the meetings will not be open to the public. He said there will be opportunities for public involvement through stakeholder meetings and webinars.

CMP Amendments

Ms. Grogan noted that the discussion of CMP amendments will be on every meeting agenda. She said the Committee needs to be specific about what the staff will be asked to prepare in terms of amending the CMP. She clarified that there should be specific regulatory standards that could be adopted as part of the CMP and be applied to new development applications.

She said that many topics have been presented over the last year. She said the potential solar amendments were provided as an example of topics that require specific guidance. She said she also included the Pinelands Preservation Alliance (PPA) white paper as a reminder of public involvement. She recommended that the white paper be reviewed and for feedback to be provided in the future on how to proceed with amendments.

Chairman Lohbauer offered to work on discussion topics for the next meeting.

Commissioner Lloyd commented that he read the PPA's recommendations and thought they were phenomenal. He said he will look at it again with a climate lens in mind. He said the committee should go back and look at all the recommendations that have been received from a climate perspective.

Ms. Grogan mentioned that several items noted in the PPA white paper have been completed (the stormwater rules) or are nearing completion (the Kirkwood-Cohansey rules). She said there are other items where action has been taken but which aren't necessarily CMP amendments. She said that some other items could lead to amendments and recommended the Committee discuss how to proceed.

6. Public Comment

Rhyan Grech, from the Pinelands Preservation Alliance, said the PPA is pleased with the stormwater amendments and the Kirkwood-Cohansey rules in process. She mentioned that there are other high priority concerns, besides what is in the white paper. She expressed concern

regarding procedures and criteria around threatened and endangered species surveys. She said that vulnerable species are going to become increasingly vulnerable as climate change impacts their habitats. She recommended that the Commission change the way it addresses threatened and endangered species surveys by hiring consultants rather than accepting the results of surveys paid for and submitted by developers. This would ensure more independent findings. She also recommended the Commission provide rigorous survey methodologies and take advantage of the extensive expertise of the science staff in developing them.

Ms. Grech said PPA advocates requiring solar on new development. She said the Committee has spent a lot of time discussing what the Commission's role should be in the terms of promoting renewable energy in the Pinelands. She said it would eliminate the false opposition between promoting renewable energy and protecting the environment. She said the way to do that is to take advantage of the impervious cover that is already existing in the Pinelands and that which would come from new development. She said the way to efficiently do both would be to require solar for new development.

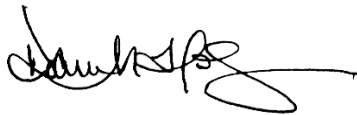
Commissioner Avery recommended this Committee, or the P&I Committee, take a subject, preferably solar, that is directly related to the Commission goals, and work through all the nuances of solar installation, connection to the grid, cutting down trees, and what management areas do not allow for it. He said that it would be a recommendation for next year's work plan. Chairman Lohbauer concurred.

Ms. Grech said that PPA recommends the Committee hold its meetings monthly, given the scope of work and the urgency of the issues.

Chairman Lohbauer commented that while he agrees with the idea, the staff need time to put things together. He said he will keep with the Executive Director's recommendation for bi-monthly meetings but will keep the recommendation in mind.

There being no further discussion, Commission Chair Matos moved the closing of the meeting. Commissioner Avery seconded the motion. The meeting concluded at 1:15 p.m.

Certified as true and correct



Dawn Holgersen
Office Assistant
July 19, 2022

Commission Vehicles



Planning for the
future.



HYBRID

1

The Commission currently has 5 late model gasoline engine vehicles:

- Dodge Dakota Pickup
- Ford Ranger Pickup
- Toyota Prius
- Jeep Wrangler (2 door)
- Jeep Wrangler (4door)

The Commission is not part of the State Vehicle Fleet.

2

What the vehicles are used for:

- Field Work – Science & Regulatory Programs
- Facility Maintenance
- In-Person Meetings
- Mail pickup/supply pickup
- Outreach



3

FY23 Recommendations

- Sell Toyota Prius
- Purchase 2 new field vehicles (SUVs or Pickups) for use by Science and Regulatory Programs staff

4



Electric Vehicle (EV) or HYBRID



Points to consider:

- Installation of Charging Station at the Commission.
- How are all Electric Vehicles going to be charging?
- Location of Charging Stations while in the Field.
- What level Charging Station is needed or available?
- How long will it take to charge when in the field?
- What if staff need to take an Electric Vehicle home?
- What's available on State Contract?
- Vehicle ground clearance for Field Use.
- What if State Contract doesn't meet the Commission's needs?

5

Installation of Charging Station at the Commission.

Pros:

- Great for the Environment.
- Grants are available to offset a small portion of the cost.
- Included in the Commission's FY22 Budget.
- Provides service to the visiting public.




Cons:

- Daily responsibility for charging Commission vehicles
- Consequences if vehicles aren't fully charged
- Monitoring and establishing priorities for use of Charging Station (Commission or public vehicles)
- Payment structure/mechanism

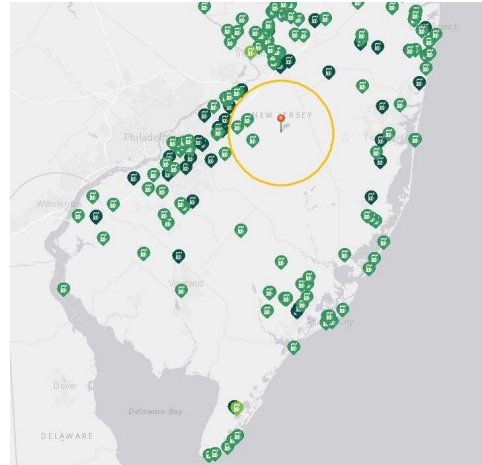
6

Off-site Public Charging Stations

Charging Levels:

-  **Level 1:** These charging stations provide charging through 120 volt (V) AC dedicated circuit breakers. Based on battery type and vehicle, Level 1 charging adds about 2 to 5 miles of range to a plug-in electric vehicle (PEV) per hour.
-  **Level 2:** These charging stations provide charging through 240V or 208V AC dedicated circuits of 20 to 100 amps, depending on the charging station requirements. Based on the battery type, charger configuration, and circuit capacity, Level 2 charging adds about 10 to 20 miles of range to a PEV per hour of charging time.
-  **DC Fast Charging:** These charging stations provide charging through a 480V or 208V AC dedicated circuit. DCFC enable rapid charging and is often located along heavy traffic corridors and at public charging locations. Based on battery type and vehicle, DCFC can add about 60-80 miles of range to a PEV in 20 minutes of charging time.

<https://nj.gov/dep/drivegreen/dg-charging.html>



<https://njdep.maps.arcgis.com/apps/webappviewer/index.html?id=e41aa50dd8cd45faba8641b6be6097b1>

7



Can staff take an Electric Vehicle home?



Staff often need take Commission vehicles home in the evening in order to go directly to site inspections or field work the next morning

- The Commission cannot pay to install a charging station at an employee's residence.
- The Commission cannot assume the liability of any possible electrical issues stemming from use of a charging outlet at an employee's residence.

8

What's available on State Contract and it's ground clearance for Field use.

Electric Vehicles:



2022 Nissan Leaf
Ground Clearance: 5 inches

2022 Chevrolet Bolt
Ground Clearance: 5 inches



2021 Ford Mustang Mach E
Ground Clearance: 5 inches

HYBRIDS:



2022 Ford Escape SE Hybrid
Ground Clearance: 7.3 inches



2021 Toyota Highlander Hybrid
Ground Clearance: 8 inches

9

What if State Contract doesn't meet the Commission's needs?

- Survey the Staff
- Create an RFQ (Request for Quote) that includes the specific needs of a future Commission Vehicle.



2022 Jeep Sahara 4xe
Ground Clearance: 9.7 inches



10