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Attorney Walt Wilson had Engineer/Planner James Chmielak sworn in to give testimony. At this time the following items were marked into evidence: **A8**-Colorized Plan prepared by Engineer Chmielak dated 9/2/2010 and revised 10/18/2010, **A9**-Overall Site Plan dated October 18, 2010 and **A10**-Aerial Exhibit of Solar Energy Farm dated October 27, 2010 & Aerial photo of surrounding area. Engineer Chmielak reviewed for the board the aerial photos which show the area around the subject property.

Engineer Chmielak said the intent of this project is to construct "Utility Scale" solar development that will consist of two megawatts of power that will connect directly into the electric grid. This project is not for site consumption, it is to be a utility scale solar project. The power would connect to the existing electrical power grid which runs along the Route 31 corridor. This will be direct generation from dusk until dawn. The solar panels will be located in the center of the property. Referring to the site plan, Engineer Chmielak stated that the lighter green area is currently in agriculture and the darker green more highly vegetated wooded areas are along the periphery of the property to the south. There are no wetlands located on the property and there is absence of water courses which was verified by the DEP. There is a C1 stream off site that has a 300' buffer which slightly encroaches into the property. Engineer Chmielak said they applied for a Highlands Preservation area approval from the DEP and have received the approval. They also received approval from the H.C. Planning Board and are awaiting final review from the H.C. Soil Conservation District. Access to the site is from Buffalo Hollow Road off Route 31.

Engineer Chmielak stated that to have minimal site disturbance they are not proposing any substantial grading or change to the existing grade. At the center of the property could be two inverter pads which are a component of the solar array system. These inverters basically convert DC current to AC current for discharge electricity into the grid. At the rear of the site there is a switch gear pad. Engineer Chmielak said this is a concrete equipment pad where the electrical equipment will be placed. There will be an overhead wire connecting to the JCP&L facility which will be extended from the existing pole. The switch gear pad is the point of interconnection.

Attorney Wilson asked Engineer Chmielak to discuss the fence. Engineer Chmielak said the fence will be located around the perimeter of the panel arrays and will consist of a standard 6' high galvanized chain link fence which will provide security to protect the facilities. There will be one locked gate at the entry of the driveway. There will be 2 vegetative improvements, one is to supplement the existing buffered vegetation along Buffalo Hollow Road and second is a vegetated surface underneath the panels. On the plans it shows a shade tolerant seed mix which is durable. They are proposing 2.66% coverage of the site. Also they will work with Soil Conservation and NRCS to review various seeding mixes and suitability for this type of application. A native meadow mix will be planted to restore the exposed soils around the perimeter where corn was grown and the soil tilled recently.

Engineer Chmielak addressed the topography of this site. The topography slopes down from the northeast to southwest. The slopes within the fenced area of the solar array are approximately 5%. The panels will be installed at a set angle and will not rotate or move. The property is well suited for this use because of the southerly orientation along with the slope conditions of the property.

Attorney Wilson asked Engineer Chmielak to speak on the Stormwater issues. Engineer Chmielak stated they performed a Stormwater Management Assessment in order to identify if there will be any negative impact from the construction of the solar array. They determined there will be less runoff in the proposed condition than from what is on the property now. Engineer Chmielak referred to the Trip Line Water Management. The panels will be oriented shoulder to shoulder from one end of the string across to the other end of the string. There will be vegetated gaps between each of the strings. There will be no trip line erosion as a result of rainwater runoff or snow drippings. The panels are less than 10' in height and will be mounted on a galvanized post that will be affixed to the ground. The panels will be attached to a racking system. The linear strings and arrays will have the galvanized posts that will be anchored to the ground with driven piers or Helical screws. Engineer Chmielak stated they prefer the use of nondisruptive Helical screws and piers.

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Engineer Chmielak went to say the panels do not require much cleaning. The rain water basically takes care of cleaning the panels which should be the same with snow. There are no hazardous materials included inside the panels. In regards to lighting, the only lighting will be switch activated that will be located at a critical location at the inventor pads and the switch gear pad at the rear. The maintenance visits will consist of a person coming to the site and performing periodic preventive maintenance about once a week. There will also be semiannual and annual site visits for more extensive inspections. The system will be monitored off site through a telemetry system. There will be no sheds; waste produced nor water needed on site. There will be no smoke, air pollution, or combustion on the property. They don't anticipate any negative impact. Also, there will be no radiation impact to the property or the surrounding properties. The technician coming to the site has a laptop computer to perform the diagnostics.

In regards to noise, there might be some noise that would come from the inventor location, where the electricity is converted from DC to AC current. There is a cooling fan much like a residential air conditioner would produce a low humming noise. Engineer Chmielak noted they don't anticipate any negative impact associated with glare from the panels. The glass on the panels is anti-reflective. There is no heat or combustion, no negative impacts relative to temperature change. There are no explosive hazards and regarding fire and safety concerns, the fire hazard is extremely low. Engineer Chmielak informed the board that he received a copy of Planner Bolan's report. The calculations show that six acres of panels would be located on the site. The plans show approximately 8000 panels. The buildable area that is proposed will not be exceeded. Engineer Chmielak said they will be in compliance with the 15' maximum height as well as the building setbacks. There will be some heavy equipment but that will be minimal. Engineer Chmielak referred to the visual impact, stating that there is no visual impact to the surrounding properties. There is dense Autumn-Olive along the perimeter of the property as well as trees along the western boundary. There is an existing tree row along the railroad corridor on both sides and wooded areas along the railroad up to the north. Attorney Wilson said they have some photos of the property and surrounding consisting of 9 photos. Attorney Gallina marked the following into evidence: **A11- 9 Photos of the property and surrounding properties.** Engineer Chmielak reviewed for the board the 9 photos. At the conclusion of Engineer Chmielak testimony, Chairman Terzuolo announced the board will take a recess at this time 9:00 p.m.

When the board reconvened at 9:13 p.m. Attorney Gallina had one procedural order. The Visual Impact Analysis and the visual analysis containing the photographs will all be included in **A11**. Chairman Terzuolo asked if the board had questions of Engineer Chmielak. Mr. Kozlowski asked about the screening and asked if they will be trimming the native meadow to keep down the invasive woody vegetation. The answer was yes. Mr. Kozlowski asked for a better description of a Helical screw. Engineer Chmielak said it is a post that gets screwed into the ground as soil anchor. Mr. MacQueen asked about the impervious coverage. Engineer Chmielak said the existing impervious coverage is 1.86% total maximum coverage which includes the existing driveway. Engineer Chmielak stated that the ordinance allows up to 40% coverage and they are proposing 2.66% coverage. Mr. Eberle asked if they have been to the adjoining residences to see what the impact would be. Engineer Chmielak said he visited the frontage of the property, the area along Route 31 and then up along Buffalo Hollow Road. Mr. Eberle asked if they physically went to any of the residences and got permission to look from there towards the site. Engineer Chmielak said no. Mr. Eberle asked if there was any risk of electrocution to anyone, including unauthorized persons. The answer was no. Mr. Eberle asked how long the construction would take. Engineer Chmielak said approximately 4 months depending on resources and weather conditions.

Mr. Perry asked about the width of the driveway. Engineer Chmielak said it is 15' wide. Mr. Perry asked if the driveway was drivable and passable for fire trucks if they need to get to the Inventor pad. Engineer Chmielak said yes. Chairman Terzuolo asked if some of the residences have a view of the site because they sit higher up and overlook the property in question. Engineer Chmielak did not feel those residences would have a problem. Chairman Terzuolo noted within the next 2 weeks the foliage will change. Engineer Chmielak said they will lose some leaves but it will still have a vegetated screen in the over story and with the Autumn-Olive which is about 20' in high. Chairman Terzuolo asked if they have considered some sort of poly. Engineer Chmielak said yes. There will be 3" of topsoil. If we have a rain condition, what is the slope running down there, asked 5% to 7%. Topsoil turns to liquid glue and it would be nice to have some sort of artificial base that's still considered pervious under the road bed that grass can

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grow through. Chairman Terzuolo asked if they have approval from NJDEP. The answer was yes. Planner Bolan asked about the disturbance calculations of 0.79 acres and wanted to know if that was using the DEP definition of disturbance. Engineer Chmielak answered yes, stating the disturbance of approximately 0.79 relates to the boundary and DEP approved it as part of the HPAA permit. Planner Bolan asked where the proposed easement is shown on the plans. Engineer Chmielak said it is shown on the plans as a proposed easement but he didn't know if it had been recorded, but the agreement does exist. Attorney Wilson said he did not know if it had been recorded. Engineer Chmielak said that the easement was obtained from the adjacent property owner to facilitate that aerial crossing in the exhibit. JCP&L already has overhead easement rights in this whole area.

Engineer Risse asked Engineer Chmielak to describe the drip line. He asked if the run of these strings is the drip line and will be parallel or perpendicular to the slope. Engineer Chmielak stated they have a parallel orientation or semi parallel, with some areas of the site. Engineer Risse asked about the grasses they are going to plant underneath the panels. Are they red fescue? Engineer Chmielak said they will use a creeping red fescue, sheep's fescue and a harsh fescue mix. Sheep fescue will grow pretty thick per Engineer Risse. Engineer Chmielak agreed and said it grows thick and up to one to two feet. Engineer Risse asked if they have a maintenance plan. Engineer Chmielak answered yes and there would be inspections several times a year and mowing as needed. Mr. Perry asked if the bridge can handle all the heavy equipment. Engineer Chmielak informed Mr. Perry they will not have to cross the bridge to get to the site. At this time, Chairman Terzuolo opened the hearing for questions from the public. The following people had questions of the witness: Dennis Regenye and Jim McMann both are residents of Buffalo Hollow Road and had many questions of the witness.

At this point in time, Chairman Terzuolo asked Ms. Glashoff for a continuation date. Ms. Glashoff offered December 8, 2010. Everyone agreed to the date. Attorney Gallina announced this matter will be continued to the December 8<sup>th</sup> meeting with no further notice given.

**PRESENTATION OF BILLS:**

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|------------------------|---|
| a. Michael Bolan, PP   | \$198.80 – Escrow ( <b>Garden Solar</b> ) |
| b. Court Stenographer  | \$200.00 – Attend Meeting 10/27/2010      |
| <b>Total: \$398.80</b> |   |

Motion by Mr. MacQueen and seconded by Mr. Abuchowski to approve the bills as presented. Unanimously approved.

**CORRESPONDENCE:**

- a. Law of the Land 10/19/2010
- b. Zoning Law 10/18/2010

Being no further business to come before the board, nor comments from the public, motion by Mr. MacQueen and seconded by Mr. Eberle to adjourn the meeting at 10:05 p.m. Unanimously approved.

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**CHAIRMAN BRUCE TERZUOLO**

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**GAIL W. GLASHOFF, BOARD SECRETARY**