

**Response of Julia F. Johnson for Union Neighbors United  
OPSB 2020 Rule Review  
Stakeholder Meeting Questions  
March 11, 2020**

## **Public Awareness and Participation in the Evaluation of Projects**

Public awareness is generally non-existent among residents of a target community until after lease option agreements have been signed, an application has been submitted to the OPSB, and the applicant has made a significant investment in a proposed project. As of today, there are six active Champaign County utility solar generation interconnection requests in the PJM queue totaling 486.2 MW.<sup>1</sup> Two of these projects appear to now be combined resulting in four developments. Lease agreements have been signed with Clearview Solar and Tradewind Solar, while lease option agreements are in place for Pattern Development and Everpower Solar<sup>2</sup>. These projects could potentially take more than 2,500 acres of farmland in Champaign County out of production.<sup>3</sup> At present, there is little or no public awareness of the projects or their potential impact on the local economy.

In February, 2020, Michigan State University's Center for Economic Analysis estimated the economic impact of reduced agricultural production as a result of the proposed Carroll Road Solar Farm in Lenawee County, MI. (Attachment A) The analysis assumed 90% of the parcels in the 1,674.53-acre solar project would have their agricultural production diverted throughout its 35-year-life. Taking into consideration the current yield and cost of production estimates, a decline of over \$38 million in gross farm revenues and more than \$23 million in farm net revenues was projected. More important, perhaps, is how these losses translate to economy-wide impacts on the county where the installation is to be located.

*"For example, the sales revenues earned by the grower are partially re-spent in the local economy to purchase seed inputs to the next year's harvest, to purchase fuel, maintain or expand capital like tractors and enclosures, etc. Those receiving payments from the farmers will also re-spend a share to restock on inventories, pay labor, taxes and operating expenses. Households increase their expenditures from labor and proprietary income, creating a second channel of impacts."*<sup>4</sup>

With respect to the Carroll Road Solar Farm, an annual \$1.5 million reduction in county transactions and a regional reduction in income of \$1 million was forecast. While one might make a case that leaseholders will receive income from leases, there is no guarantee that the revenues would be spent locally. For instance, in Champaign County, more than half of the lease and lease option contracts have been signed by owners who reside outside of the county or the state. This brings urgency to the OPSB rule review and the need for meaningful resident participation.

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<sup>1</sup> <https://www.pjm.com/planning/services-requests/interconnection-queues.aspx>

<sup>2</sup> The EverPower Solar project also has a 40 MW battery storage facility at the same location.

<sup>3</sup> According to the National Renewable Energy Laboratory, the average total direct land requirements for PV solar projects greater than 20 MW is 7.5 acres per MW for fixed-tilt systems, 8.3 acres per MW for single axis tracking systems, and 8.1 acres per MW for dual axis tracking systems.

<sup>4</sup> Ibid.

Because it is imperative that the public and local governments have timely awareness of and opportunity to participate in the evaluation of renewable energy projects at the earliest time. Moreover, given the impacts to the landscape, the quality of life and the local economy, the public should have the right to deny the development of a project. This right should be exercised through a referendum at the township level as contemplated in H.B. 401 or S.B. 234 of the 133<sup>rd</sup> General Assembly.

In addition to the above, no utility wind or solar facility should be approved in any township where a Resolution has been adopted in opposition to such a facility. Resolutions of opposition should be formally acknowledged as evidence that a project does not meet the requirements of O.R.C. 4906.10 (A) (6).

1. How can the Board better engage the public?

A. How can the process provide meaningful participation in project reviews?

1. Prior to the filing of applications by the applicant or the Board?

**Public Notice should be made to affected jurisdictions at the time an applicant files for a case number with the OPSB. Jurisdictions and the public should be given the opportunity to be added to OPSB notification lists for any activity related to the case, including transmission. This could be accomplished through a simple Notice of Intent to Develop.**

2. During the period between the application filing and the finding of completeness?

**Between the application filing and before the finding of completeness, affected townships should have the opportunity to adopt and submit Resolutions in support of or in opposition to renewable energy development.**

3. During the period of Staff review and development of its report (within the statutory deadline of 15 days prior to public hearing - R.C. 4906.07)?

**During the period of Staff review, the applicant should be required to explain, as appropriate, why it has chosen to develop a project in any township which has adopted a Resolution in Opposition. The developer's explanation will be a part of the public record in the case. Perhaps this question could be required more formally as a part of OPSB rules.**

4. What methods of participation are most useful to the public (i.e. public testimony, verbal comments on the record, written comments, or other forms of participation)?

**OPSB Public hearings that take place in a targeted community at places and times convenient to the public are most useful to the public. This has not always been the case historically. Written comments are also useful. Townships and county government should also be encouraged to host their own informal town hall-type meetings where the public can engage in dialogue. OPSB staff should be available to participate in such meetings as a resource. Applicants should also host informational meetings prior to entering into any lease option agreements. Rules should prohibit developers from entering lease agreements for 60 days following the Intent to Develop notice and a public meeting. Any lease option agreements or**

leases should also have a right of rescission for 60 days following the public meeting.

- B. How can Staff become better informed as to local knowledge and project concerns prior to completing its formal report?

**Staff should ascertain whether there are existing or contemplated Resolutions in Opposition to or Support for development adopted by township government. Staff can also consult the Regional Planning Organization and the County Comprehensive Land Use Plan. The vision which a community has for its future is a critical consideration. The OPSB should not have the power to over-rule the community. Staff participation as a resource, when invited by the community following a Notice to Develop, would enhance Staff's local knowledge and understanding. This can be particularly important where concerns about cumulative effect are at issue.<sup>5</sup>**

- C. Current rules require 4 public notices regarding a proposed project: (1) pre-application informational meeting; (2) the determination of application completeness; (3) the first public notice 15 days after the application is accepted; and, (4) the second public notice 7-21 days prior to public hearing. What additional public notices might be helpful during the evaluation of a project?

**The first public notice should be required at the time the Applicant is awarded a case number by the OPSB via a Notice of Intent to Develop which defines the proposed project area. The project area is known at this point due to studies underway at PJM. This would enable the public to better prepare for the pre-application informational meeting.**

- D. How else should the Board modify or update the current processes, including the public information meeting, public hearing, and evidentiary hearing?

**The Board should weigh whether there are Resolutions adopted by townships in support of or in opposition to development during the OPSB compliance review. In the event the Applicant wishes to challenge Resolutions in Opposition, they must do so during the course of the staff review and the applicant's reasoning should be included in the staff report which is available to the public. In addition, the developer should be required to respond publicly and on the record to questions posed by the public whether they be written or verbal. Applications for projects in townships where they are not wanted should not be deemed "complete" and should be withdrawn. All applications must be subject to local referendum at the township level.**

- E. Staff currently consults with and engages subject matter experts from state and federal agencies to seek and provide information while reviewing projects for possible approval. Can this process be improved? And if so, what recommendations do you have?

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<sup>5</sup> OPSB should amend its rules to make "cumulative impact" a criteria in evaluating a project.

**State agencies should include recommendations from the public as to subject matter experts. It is not acceptable for agencies to rely exclusively upon subject matter experts in the employ of the applicant or their trade associations. In addition, impacts observed in other certificated Ohio projects should not be considered proprietary and be available for public inspection. Avian mortality reports and incident reports are two examples.**

**Where local residents within or near the footprint of a proposed development engage a qualified acoustics expert to determine noise levels at the property line, those findings should have equal weight to developer-sponsored studies. No project, whether wind or solar, should be approved which raises baseline noise levels more than 5 decibels.**

**No project or lease agreement should bar a leaseholder from speaking out or complaining about any adverse impact. Leaseholders should be able to communicate nuisance issues to local public officials. Currently, wind leaseholders are required to only report complaints directly to the developer.**

**Projects that are not supported by the local community should be terminated early in the process.**

**During adjudicatory hearings, expert testimony should not be permitted to be presented by the developer's representative. Intervenors are not permitted to relay evidence supplied by their experts. The current process represents a double standard that harms the public.**

**An inventory of subject matter experts and some staff competence should be resident in state agencies. Applicant fees should be used to defray the cost of independent experts.**

- F. How can the Staff improve the quality and timeliness of its review of transmission projects through coordination with regional planning authorities such as PJM Interconnect LLC?

**At the first public notice of Intent to Develop should include the proposed transmission plan under review by PJM.**

## **The Application Review and Adjudication Process**

**The Board must recognize utility scale wind and solar projects will have generational impacts on the community. Given the public will be forced to live with projects for the rest of their lives, there is no justification or equity in moving any project forward without final designs, fully developed project information and detailed studies.**

- 2. What modifications should occur as to application processing?
  - A. With regard to the findings that the Board must make pursuant to R.C. 4906.10, to what extent can any of the required determinations be deferred after a certificate is authorized to accommodate the receipt of information for which the provision may not be feasible until after the certificate is authorized?

**There is no circumstance in which findings should be determined after a certificate is authorized. This includes leases, easements or Good Neighbor Agreements which must be executed prior to OPSB approval.**

- B. If any such determination is so deferred, should the Board consider unbundling a certificate to construct and operate, and permit construction to move forward while the operating authority is deferred until such time and any open items are addressed? **No.** Should certain phases or components of the application be: (1) approved only upon submission of “final designs;” or, (2) approved pursuant to more fully developed project information if it is impractical or not feasible to provide final detailed studies/designs or plans? What should the Board consider when making this determination of feasibility?

1. Landscape/lighting plans?

**Landscape and lighting plans must be fully developed and must protect the night sky to the greatest extent possible. Sometimes solar developers will promise to plant native species and pollinator habitat but not reveal the planting will be confined to “pockets” of land surrounding a solar field and not under the panels. Plans need to be specific. Lighting plans for the substation should be included as well as any security lighting used at the site.**

2. Solar glare studies?

**Solar glare studies should be publicly available prior to the consideration of the application.**

3. Cultural resource studies?

**Cultural resource studies should be submitted, reviewed and subject to public comment as early in the process as possible. Cultural resource studies should provide for input from the target community.**

4. Vegetation management and plant/animal impact action plans?

**Where solar development occurs on or near cropland, requirements for native vegetation and pollinator habitat should be required under the panels as opposed to the sustained use of herbicides. Maintaining soil health should be a requirement for solar facilities placed on productive agricultural land. Plans for maintaining soil health must be detailed and include assignment of responsibility for the life of the project and provide for periodic local inspection, as appropriate.**

5. Final decommissioning plans?

**Final decommissioning plans must be established, agreed upon and funded prior to construction. The provision of adequate upfront funding is resisted by developers of both wind and solar because it represents an upfront cost that they are usually not willing to pay. This is common in instances where the developer plans to flip the project to a new owner. It is the community that is exposed to risk when decommissioning plans are not funded upfront and reviewed for sufficiency throughout the life of the project.**

**Decommissioning plans should never include salvage value. The project owner is free to recycle or resell decommissioned parts and receive income but a community should not have to shoulder the risk that there will be value decades into the future. Moreover, a community should never be asked to take on the responsibility for disposal of solar panels or turbine blades which may not be accepted at area landfills unless cut down into small pieces, an expensive requirement.**

6. Geotechnical and other testing results?

**Geotechnical reports must be completed and available to the public during the application review process and prior to the adjudication. Project impacts on or near wetlands, karst areas or other locally important natural resources must be identified and tested as early as possible in the process and be considered as a part of a feasibility determination. Geotechnical reports can reveal issues which make development in an area prohibitive from a cost perspective as was experienced in the Hardin County's Invenergy project.**

7. Adaptive engineering plans (i.e. turbine modifications)?

**Any modification made post-certification must be considered a change triggering a property line setback and consideration of additional mitigation where increased noise or other adverse impacts may result. Any repowering should require review and notice to the leaseholder as well as the public where increased risk to the public may be present.**

8. Impacts to agricultural land?

**Impacts to agricultural land should include an economic analysis to determine direct and indirect impacts as well as impacts to the regional economy. Where appropriate, the cumulative impacts must be calculated in advance of certification. Current use of the JEDI model in evaluation of utility wind applications should not permit using default input in lieu of actual data. Actual data should be based on revenue generated by resident leaseholders and exclude non-resident leaseholders.**

9. Land use authority?

**Land use plans must be considered but must not be determinative over input from the local jurisdiction. Where land use plans place a priority on the preservation of agricultural land, whether in a designated district or not, the OPSB should give it great weight.**

10. Transparent safety information, including access to non-proprietary safety manual information?

**Safety manual information must be made available to the public generally and to leaseholders, specifically, before contracts are signed. Where needed, certain proprietary information that does not speak to worker or public safety, could be redacted.**

11. Interconnection information?

**The Notice of Intent to Develop or first Public Notice should include the**

**transmission route and the location of the substation.**

12. land lease/use arrangements

**Lease agreements and easements should be recorded within 10 days of signing. Leases should neither be solicited nor signed until at least 60 days following the first public notice. A 60-day right of rescission should be granted to all leaseholders. Leaseholders should not be required to maintain confidentiality.**

13. Other

**Where grading is proposed on agricultural land, drainage impact studies must be made available. Likewise, drainage impacts from wind turbine pads must also be identified and made available to the public.**

- C. What level of design and engineering drawings should be provided in the application? Should the final design be provided?
- D. To the extent the applicant submits supportive studies, should the studies be subject to a trustworthiness standard such as the evidentiary standard applicable to expert opinions? If so, what standard? If not, why not?

**Whichever standard is adopted, there must not be a double standard which imposes greater burden on the public. The long experience of determining health risks of tobacco illustrate that any deep-pocketed company can buy whatever supportive studies they need. The public often lacks similar resources. In numerous cases, common sense can serve just as well as a supportive study. The impact of a 600' industrial wind turbine on the property value of the neighboring property is a case in point. The wind industry continues to claim "studies" show no effect when common sense clearly suggests otherwise.**

**As noted earlier, during adjudicatory hearings, expert testimony should not be permitted to be presented by the developer's representative. Intervenors are not permitted to relay evidence supplied by their experts. The current process represents a double standard that harms the public.**

**An inventory of subject matter experts and some staff competence should be resident in state agencies. Applicant fees should be used to defray the cost of independent experts.**

- E. Does the application need to be expanded, including the required information in the filing?
- F. Should multi-stage projects be required to be filed as one combined application (i.e., transmission line, substation, generating facility)? Why or why not?

**While it would be helpful for multi-stage projects to be filed as one application, it would likely be burdensome for the public. It would be helpful for there to be a statement in an introduction or summary that indicates all of the contemplated stages as well as previously certificated phases.**

**In the event a storage project is connected to a wind or solar project, it should be identified. A 40MW solar project built along with a 40MW storage battery, should be considered an 80 MW project subject to OPSB authorization. If the developer contemplates eventual expansion of the original facility, that should also be**

**disclosed. Both the public and the Board need to develop a way to consider and respond to concerns of cumulative impact.**

For multi-stage projects involving a generating plant and a dedicated transmission line, how should “need” for the transmission line be determined?

**The dedicated transmission line need should only be determined after “need” is determined for the generating plant.**

- G. What criteria should determine the difference between a “modification” versus an “amendment?”

**There should be no difference between a “modification” and an “amendment”. Both should be considered a “change” and require public notice, OPSB review and approval and, where appropriate, imposition of property line setbacks for wind energy projects.**

- H. What criteria should determine if a proposed change in the facility would result in any material increase in environmental impact or a substantial change in location for purposes of R.C. 4906.07?

**It should be assumed that a proposed change in a facility will result in an increase in environmental impact. The change should require public notice and comment as well as OPSB review and approval.**

- I. Where provision for decommissioning is appropriate, should the applicant be required to demonstrate project financial viability/adequate cash flow sufficient to accommodate estimated and actual decommissioning expense?

**Yes. In addition, there should be periodic review of the decommissioning provisions to ensure they remain adequate throughout the life of the project. As noted previously, Final decommissioning plans must be established, agreed upon and funded prior to construction. The provision of adequate upfront funding is resisted by developers of both wind and solar because it represents an upfront cost that they are usually not willing to pay. This is common in instances where the developer plans to flip the project to a new owner. It is the community that is exposed to risk when decommissioning plans are not funded upfront and reviewed for sufficiency throughout the life of the project.**

**Decommissioning plans should never include salvage value. The project owner is free to recycle or resell decommissioned parts and receive income, but a community should not have to shoulder the risk that there will be value decades into the future. Moreover, a community should never be asked to take on the responsibility for disposal of solar panels or turbine blades which may not be accepted at area landfills unless cut down into small pieces, an expensive requirement.**

- J. Should an applicant be required to submit manufacture safety manuals and other materials and to what extent should such information be available to the public?

**Yes. Applicants should be required to submit manufacturer safety manuals and they should be available to the public, generally, and to leaseholders specifically. Leaseholders should be required to acknowledge receipt of safety manuals prior to signing a lease or granting an easement. If it is not feasible to provide the entire**

**safety manual, those provisions for worker safety and/or the public should be provided.**

- K. Should the applicant be required to address issues and concerns raised in public comments?

**Yes. Either through a public meeting which is recorded and made a part of the record or through a series questions posed by the public.**

## **Certificate Monitoring and Enforcement**

**There is widespread public concern that monitoring and enforcement of the terms of a certificate will not occur. It is well established that as wind turbines age, they emit increased noise. The productivity of solar panels is understood to deteriorate over time perhaps due to leaks. It is unknown whether the Board has dedicated funds reserved for monitoring. Whereas there may be instances where the developer may be responsible for monitoring and reporting, there is likely a desire by the public to have access to and an opportunity to dispute reports. Credible monitoring which is supported by the public can facilitate future development while monitoring that is inaccessible or questioned will have the opposite effect.**

3. How should the Board monitor and enforce the terms of its certificates?
- A. How should compliance with certificated conditions be documented both with regard to the determination of when construction may commence and through the life of the certificate/facility?

**Each certificated project should have a webpage administered by the OPSB. The certificate and any conditions should be available. Monitoring and schedules performed by the Board, its contractors, the developer or other third parties should be posted, and comments should be invited, as appropriate. A report of findings should be posted, and an accessible archive maintained throughout the life of the project.**

- B. To the extent that permits, licenses or other consents must be obtained from federal, state or local authorities before the project can move forward, how should the applicant document satisfaction of these requirements and update the Staff and Board as a result of changes in circumstances that may affect the authority provided by such permits, licenses or other consents.

**All permits should be available for public inspection on a project website hosted by the OPSB. Where the public or a leaseholder observes a failure to comply with a permit requirement, there should be an avenue for filing a complaint with the OPSB.**

- C. More generally, what post-construction monitoring and enforcement procedures should apply, including during the operation and decommissioning phase?

**Complaint protocols should be posted and a list of complaints and their resolution should be publicly available. Incident reports as well as avian mortality reports should be required and should follow a format developed by the OPSB pursuant to rules. The status of the decommissioning fund should also**

**be made available. In those instances where a new application is filed to expand an existing facility, the monitoring and enforcement record should be considered.**

- D. What additional procedures should apply, if any, to certificate transfers beyond the transferee agreeing to comply with the terms, conditions, and modifications imposed upon the certificate by the Board? What enforcement mechanisms should exist to ensure compliance with certificated conditions, board orders, rules, or laws (i.e. suspension of certificate or operating authority in the event of a violation of 4906.98)?

**Transparency should govern compliance with any term, condition or permit. The public should have the opportunity to comment on compliance annually and the responses must be made a part of the record. Where non-compliance is determined, a penalty fee should be levied the first time and a revocation be considered for repeat non-compliance.**

- E. By what process should decommissioning costs be revisited and evaluated for purposes of establishing the bond level?

**There should be periodic review of the decommissioning provisions to ensure they remain adequate throughout the life of the project. The process should include local elected officials in the target community.**

**Recently, the second county in Colorado banned wind turbine blades from landfills. The state of Wyoming has legislatively banned turbine blades from any landfill in the state. These issues may continue to build and decommissioning plans must anticipate their possibility.**

**Carroll Road Solar Farm LLC. Estimated Economic Impacts of Reduced Agricultural Production**

The Carroll Road Solar Farm LLC. solar panel installation is expected to be placed on 1,674.53 acres of mostly farmland in Lenawee County, MI. We assert that 90 percent of these parcels will have agricultural production diverted through the 35 year life of this installation. Based on current yield and cost of production estimates, we estimated the expected loss in economic activity from lost agricultural production.<sup>1</sup>

Estimate direct annual loss of:

- **\$1,092,850 in gross farm revenues (cash sales of farms)**
- **\$473,800 in farm net revenues (Farm revenues to proprietor, farm capital and farm land)**
- **\$49,000 in farm labor earnings**

Over 35 years of the installation, this represents a decline in (2020 \$ values held constant):

- **\$38,249,700 in gross farm revenues**
- **\$23,260,600 in farm net revenues**
- **\$1,714,300 in farm labor earnings**

We simulated how the loss in annual farm sales translates to economy-wide impacts on Lenawee County, MI. Economy-wide impacts are larger than direct impacts because dollars recirculate throughout the economy. For example, the sales revenues earned by the grower are partially re-spent in the local economy to purchase seed inputs to the next year's harvest, to purchase fuel, maintain or expand capital like tractors and enclosures, etc. Those receiving payments from the farmers will also re-spend a share to restock on inventories, pay labor, taxes and operating expenses. Households increase their expenditures from labor and proprietary income, creating a second channel of impacts. Together, the business to business transactions and household to business transactions make up what we call secondary expenditures (indirect and induced effects, respectively). The cycle continues, decreased only to the extent that purchases are made to suppliers from outside of Lenawee County. The table below shows estimates using annual estimates described above.

Model simulation: Lost Farm Sales Impacts on Lenawee County, MI

| Impact Type            | Employment | Labor Income | Regional Income | Output      |
|------------------------|------------|--------------|-----------------|-------------|
| <b>Direct Effect</b>   | 6          | \$48,980     | \$713,567       | \$1,092,848 |
| <b>Indirect Effect</b> | 2          | \$106,285    | \$209,064       | \$320,187   |
| <b>Induced Effect</b>  | 0          | \$35,682     | \$21,220        | \$110,923   |
| <b>Total Effect</b>    | 8          | \$184,030    | \$943,851       | \$1,523,958 |

**Direct loss of agriculture sales of \$1,092,848** will create a decrease in total transactions in Lenawee County, totaling \$1.5 million per year. This would result in a reduction of regional income of just under

<sup>1</sup> Estimates provided by the Center for Economic Analysis at Michigan State University under the directorship of Steven R. Miller. For more information contact Steven Miller at 517.355.2153 or by email at [mill1707@msu.edu](mailto:mill1707@msu.edu).

**Carroll Road Solar Farm LLC. Estimated Economic Impacts of Reduced Agricultural Production**

\$1,000,000 per year.<sup>2</sup> Total labor income will be expected to decline by \$184,030, impacting a total of 8 Lenawee County workers.<sup>3</sup>

These estimates only take into account of expected impacts tied to reduced agricultural activities as currently exercised on these farms and do not take into consideration employment by Carroll Road Solar Farm LLC in maintaining and operating the solar panel installation. It also does not take into consideration the expected impacts of any annual payments made on behalf of Carroll Road Solar Farm LLC for personal property taxes, income taxes and land lease payments. Finally, the estimates do not take into account any substituted economic activity that may be applied to these lands in the presence of the solar panel installation.

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<sup>2</sup> Regional income is the combined labor income, proprietor's income, payments to capital and landowners and indirect business taxes.

<sup>3</sup> Employment may include self-employed proprietors.