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STATE OF MICHIGAN
DEPARTMENT OF TREASURY
LANSING

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DATE: November 30, 2007

TO: State Tax Commission

VIA: Kelli Sobel, Executive Secretary

FROM: T. J. Schnelle, Manager
Commercial/Industrial/Utilities
Valuations Section

SUBJECT: Supplement to Memorandum Dated November 5, 2007, Relating to Wind Energy Systems

INTRODUCTION:

This Memorandum supplements the previous Staff Memorandum relating to wind energy systems, which is dated November 5, 2007. In that Memorandum, Staff recommended that a separate procedure be adopted for valuing real property interests associated with the development of wind farms and that a determination should be made whether such interests were assessable to the wind farm developer, as part of the personal property assessment or were assessable as a real property assessment, either to the wind energy system developer (hereafter the "developer"), as a separate real property interest, or to the fee owner, as part of the value of the land. As was stated in Staff's previous memorandum, for both assessment purposes and under general principles of real property law, electric generation facilities, including all attached equipment needed for operation, have historically been deemed to be real property in nature. However, as was also mentioned in the previous memorandum, Michigan Public Act 633 of 2006 amended MCL 211.8 to provide that wind energy systems are assessable as personal property. Uncertainty exists for the reason that, while PA 633 specifically indicates that most of the components will be assessed as personal property, it does not mention foundations, land improvements (such as fences and roads) made by the operator, structures other than the wind turbines, or easement and right of way interests. At its November 6, 2007 meeting, the State Tax Commission directed that Staff consult with the Office of the Attorney General to determine the appropriate treatment of these interests.

STAFF'S RECOMMENDED TREATMENT OF REAL PROPERTY RELATED COMPONENTS OF WIND ENERGY SYSTEMS:

After consulting with the Office of the Attorney General, Staff recommends that the value of all foundations, all structures, all developer installed land improvements (such as fences and roads),

and all leasehold, easement and/or right of way interests should be assessed to the wind park developer, as part of the personal property roll assessment contemplated by Public Act 633. This recommendation is made with the concurrence of the Assistant Attorneys General in the Revenue and Collections Division and is based on the following analysis:

1. MCL 211.1 provides that all the property, real and personal, within the jurisdiction of this state, not expressly exempted, is subject to taxation. It is clear that the foundations, structures, developer installed land improvements (such as fences and roads), and leasehold, easement and/or right of way interests are generally within the scope of property which is made subject to taxation and Staff cannot identify any statutory provision which would cause such interests to be treated as exempt.

2. The only available documentation evidencing an arrangement between the developer and the landowner suggests that the landowner has granted an easement in gross. An easement in gross is a right, personal to the holder, to use the land of another in a particular way. Given the personal nature of the grant, the valuation of the easement is dependent on, and intimately associated with, the activity which the holder actually engages in on the land which is encumbered.

3. It appears that, typically, both the developer and the landowner will be in physical possession of significant portions of the land surface and that as the wind energy project progresses, the relative extent of the physical possession of each will change, until the project is complete.

4. Proper assessment of wind energy systems requires a consistent valuation and assessment process to assure uniform and complete assessment of the wind energy systems. The development of a consistent valuation and assessment process is hindered by the fact that, initially, the extent of the developer's actual use of the land is non-existent and the fact that the developer's future use, if any, is uncertain. Both the revenue stream which the landowner will realize and the value of the easement rights to the developer depends on when, if, and the extent to which, the developer decides to avail itself of its right to develop the project.

5. In addition, unless the easement and right of way interests are valued together with the other components of the wind energy system, the extent to which these interests are being used profitably cannot be sufficiently ascertained. Such profitability will ultimately be determined by a variety of factors which cannot be quantified until a significant period of operating experience can be analyzed. The factors which are likely to affect profitability include the number of units ultimately installed, the operating and maintenance expenses incurred, the amount of gross revenue per kilowatt hour sold, the length of the project life, and the rate of technological change. The payments to the landowner under the easement agreement, which are based on gross revenue, may not reflect the true value of the easement rights, simply because the payments provide no indication of the extent to which the project is actually profitable. In other words, valuing the easements and right of ways to the landowner, may fail to value the interests based on their actual

contribution to the value of the system, and may result in an under-assessment or over-assessment of the wind energy systems. On the other hand, if the easement and right of way interests are assessed together with the other components of the wind energy system, the extent of profitability, or lack thereof, can be realistically determined.

6. The developer's interest in the real property presents a variety of complex valuation and administrative questions, including:

    - Issues of property classification. Is the real property classification under MCL 211.34c determined by the extent of the use for wind energy purposes and, if so, how is the assessor to determine when the use for wind energy causes the classification change to occur?
    - Issues of when, and under what circumstances, the Taxable Value should be uncapped. If the landowner conveys the land subject to the wind energy developer's interest, has a Transfer of Ownership occurred? What if it is the developer who conveys its interest?
    - Issues of when, and under what circumstances, an Addition should be entered in the Capped Value Formula. If the developer constructs an additional wind turbine tower, does that construction result in an Addition in the Capped Value Formula (to represent the expansion of the easement) for purposes of determining the landowner's Taxable Value?
    - Issues relating to qualification of the landowner for the Principal Residence Exemption, the Qualified Forest Exemption, and/or the Qualified Agricultural Exemption. Is the percentage of exemption for Principal Residence purposes reduced, or the eligibility for Qualified Forest and Qualified Agricultural exemption purposes affected if the property has wind energy systems located on it?
    - Issues of valuation relating to the wind turbines. Although the wind turbine tower and equipment components surely contribute to the income stream realized by the developer, the real property and land improvement interests associated with the wind turbines also contribute. If these interests are assessed separately, then the potential exists for inconsistent results, in which the total indicated value is either too high or too low. Further, the development of an income approach to value may be hampered by the inability to develop separate income streams for the various elements of the wind energy system (real property interests and personal property interests).

7. The components of the wind energy system, consisting of the easements and rights of way, the land improvements, and the wind turbine towers themselves, represent one functional asset. Given this fact, Staff believes that it is reasonable to conclude that the legislature, when it enacted Public Act 633, assumed that each wind turbine should be assessed as one asset -- in the case of wind energy systems, an asset assessed on the personal property portion of the assessment roll -- and that it did not intend the establishment of separate assessments for the separate components of the asset. Such a conclusion is supported by the treatment of similar assets (where the landowner retains substantial rights to possess and use the encumbered land), such as electric transmission

and distribution systems, transmission and distribution pipelines and the assessable portions of oil and gas wellhead assets, where these uses do not affect the determination of classification under MCL 211.34c, the determination of whether an uncapping of Taxable Value has occurred and/or the determination of whether the property qualifies for the Principal Residence or Qualified Agricultural Exemptions, and where the real property interests are assessed to the holder of the right of way or easement along with the other components of the asset.

COMPREHENSIVE RECOMMENDATION:

Staff recommends that the State Tax Commission adopt the following procedures:

1. That assessors value all components of wind energy systems as personal property on the personal property portion of the assessment roll.

2. That the personal property assessment for wind energy systems include all equipment components, including rotors, drive trains, towers, controls, electric interfaces and tower foundations, in all cases including freight and installation costs, overheads and other indirect costs, and also include engineering and permit costs, land improvements (other than structures, which are discussed in paragraph 7 below), such as roads, fences and communications, and that such interests be valued using the Table recommended in the Staff's November 5, 2007 Memorandum, to wit:

Vintage Age	Acquisition Year For 2008 Statement	Cost Multiplier
1	2007	1.00
2	2006	.95
3	2005	.90
4	2004	.85
5	2003	.80
6	2002	.76
7	2001	.70
8	2000	.65
9	1999	.60
10	1998	.56
11	1997	.50
12	1996	.45
13	1995	.40
14	1994	.36
Prior	1993	.30

3. That the Table set forth in paragraph 2 above should be reviewed by the Commission

after 3 years of operation, after 7 years of operation, and after 12 years of operation, according to the plan recommended in, and for the reasons set forth in, said November 5, 2007 Memorandum.

4. That the amount contributed to the value of the wind energy system by easements and/or rights of way should be assessed as part of the wind energy system, on the personal property portion of the assessment roll, and to the owner of the wind energy system.

5. That, initially, the components of value of the wind energy system which would otherwise be in the nature of real property interests, such as easement and/or right of way interests and/or tenancy interests, be valued in the amount of $36,400, True Cash Value, per installed wind energy unit ($18,200 Assessed Value). This valuation procedure has been developed by calculating the present worth of the estimated developer's payments to the fee title holder, and using the following model:

   - A Turbine Capacity of 1.65 Megawatts.
   - A Capacity Factor of 0.30.
   - Annual Revenue of $264,508, Computed Using a Rate of $61 per Megawatt Hour (The estimated contract rate for wind turbine generated electricity in Michigan according to knowledgeable staff of the Michigan Public Service Commission).
   - A Payment to the Landowner for Use of the Easement Rights of 2% per Annum of Gross Energy Revenues.
   - A Discount Rate of 14.521% (computed using a risk free rate of 3.34%, a market risk premium of 8.6% and a volatility Beta of 1.30).

   It should be noted that the assumptions set forth above are subject to update as the project development continues, and that annual adjustment is appropriate, both because additional data may become available and because much of the data is subject to change as time passes.

6. That the valuation of the real property interests described in paragraph 5 above should be reviewed and adjusted annually by the State Tax Commission.

7. That buildings and other structures, if any, that might be installed by the developer on the fee title holder's land should be valued using the appropriate Sections of Volume II of the Michigan Assessor's Manual and assessed according to the procedures described in STC Bulletin 8 of 2002 and STC Bulletin 1 of 2003, and that this valuation process should be accomplished annually.

8. That if an individual wind turbine is under construction on Tax Day (if it has not yet been placed in service), the incurred construction costs as of that Tax Day shall be reported as Construction in Progress on the Developer's Personal Property Statement. These capitalized costs should be reported as an acquisition in the year that the turbine is placed in service, starting on the first Tax Day after the turbine is placed in service. The Assessor should not add value for easement and right of way interests, as described in paragraph 5 above, until the first assessment year after the turbine is placed in service.

9. That the classification of land on which the wind energy system(s) are located, as provided for under MCL 211.34c, should be made without regard to the existence of the wind energy system(s), and that the classification should, instead, be based on a the use or uses made by, or under the authority of, the fee title holder, or the fee title holder's tenant.

10. Staff notes that classification of the wind energy systems themselves is not addressed by MCL 211.34c and, therefore, recommends that the correct classification should be determined by the State Tax Commission based on the results of the overall review being done by it in order to address the credit and exemption issues created by passage of the Michigan Business Tax. Staff also recommends that the State Tax Commission consider action, through appropriate means, to obtain legislative action consistent with its determination of classification for the property.

11. That the Commission advise assessors that the existence of wind energy systems does not affect the determination of whether there has been a Transfer of Ownership, as defined in MCL 211.27a, and that the determination of whether to uncap the Taxable Value of the land and improvements located thereon should be made based on the conveyance of the fee title owner's interest, or lack thereof.

12. That all wind energy systems located on one legally described parcel of real property should be combined into one personal property assessment but that, as additional wind energy towers are, from time to time, established, the additional value added by the construction of that tower, including value added pursuant to the procedure recommended in paragraph 5 above, should be deemed an "Addition" in the Capped Value Formula.

13. That assessors should be advised that, given the method used to value easement and right of way interests, as described in paragraph 5 above, the possibility exists that the assessments for a wind energy system may be subject to the calculation of a Capped Value, and a determination that the Taxable Value is less than the State Equalized Value, as described in State Tax Commission Bulletin 18 of 1995, State Tax Commission Bulletin 2 of 1996 and State Tax Commission Bulletin 1 of 2000. For purposes of making such calculations, the assessor shall calculate Capped Value for the personal property parcel as a whole, not for the individual wind turbines.

14. That none of the value added by the erection and/or development of wind energy systems on a parcel should be considered in determining the True Cash Value of that real property parcel (except as noted in paragraph 17 below), or considered to be an "Addition" in the Capped Value Formula, when determining the Taxable Value of that real property parcel.

15. That development of wind energy systems on a real property parcel should not be considered to be a disqualifying or limiting use for purposes of determining the Principal Residence Exemption, the Qualified Forest Exemption, and/or the Qualified Agricultural Exemption. In other words, it is recommended that the percentage of the exemption for Principal Residence and Qualified Agricultural Exemption purposes should not be reduced, and that the eligibility of the real property parcel for the Qualified Forest

Exemption should not be affected by, the installation of wind energy systems on the parcel. However, Staff recommends that the extent and/or qualification of the parcel should take into account any building or other non-wind turbine structure which is erected. If adopted, this latter recommendation may affect the percentage of the Principal Residence and the Qualified Agricultural Exemptions and it will affect the ability of the land owner to obtain a Qualified Forest Exemption.

16. That the State Tax Commission advise assessors that they were mistaken if they uncapped the Taxable Value of a real property parcel based on a determination that an agreement has been executed for use of a parcel to install wind energy systems and that they should take the appropriate action at the July or December meeting of the Board of Review to recap the Taxable Value, pursuant to the procedure provided in MCL 211.27a(4) and Bulletin 12 of 2005.

17. That assessors should be advised that their determination of the amount of a real property parcel's True Cash Value may, or may not, be affected by the existence of an easement or other agreement to place wind energy systems on the parcel, but that if there is an effect, it will not occur until the erection of a wind turbine occurs, and it is unlikely that the effect will be equal to the amount of increase in the developer's personal property assessment that results from application of the procedure described in paragraph 5 above. Further, assessors should be advised that any determined reduction in value is a market adjustment, and is not either a Headlee or Capped Value Loss. Staff suggests that these points might be best illustrated by providing assessors with an example of the application of this advice.