

White Oak Township Solar Ordinance

DRAFT Section 4.51 of the Zoning Ordinance

DRAFT DATE: June 23, 2021

ADOPTED:

EFFECTIVE:

DRAFT

- (6) **Solar Panel Height:** The height of a solar panel structure with a panel at the highest vertical point.
- (7) **Utility Grid, Electric:** The electrical power system network comprised of the generating plant, the transmission lines, the substation, transformers, the distribution lines, and the consumer.
- (8) **Wetland:** As used in this Ordinance, wetland shall mean the areas defined as such by Michigan law (see Part 301 Inland Lakes and Rivers and Part 303 Wetlands Protections of the Natural Resources and Environmental Protection Act, last revised effective 3-29-19), and regulated by the Michigan Department of Natural Resources, and the Michigan Department of Environment, Great Lakes, and Energy.
- (9) **Solar Energy Systems Applicant:** The person, firm, corporation, company, limited liability corporation or other entity, as well as the Applicant's successors, assigns and/or transferees, which applies for Township approval (permit) to construct a solar energy system and/or solar energy system Testing Facility.
- (10) **Solar Energy System:** A solar photovoltaic cell, panel, or array, or series of cells, panels, or arrays, that converts solar energy to usable thermal, mechanical, chemical, or electrical energy.
 - (a) **Solar Farm:** A utility-scale commercial facility that converts sunlight into electricity, whether by photovoltaics, concentrating solar thermal devices or any other various experimental or new solar technologies for the primary purpose of wholesale or retail sales of generated electric power off-site.
 - (b) **Small-Scale Solar Energy System:** A single residential or small business-scale solar energy conversion system consisting of building-mounted panels, ground-mounted solar arrays, or other solar energy fixtures, and associated control or conversion electronics that will be used exclusively for private, on-site purposes and not used for any commercial resale of any energy, except for the sale of surplus electrical energy back to the electrical grid. Solar Farm.
- (11) **Solar Energy System Testing Facility:** A structure and equipment such as a meteorological tower for the collection of solar data and other meteorological data and transmission to a collection source, shall not be deemed to be a communication tower.
- (C) **Small Scale Solar Energy System.** The following standards shall apply to Small Scale Solar Energy System in addition to the general Special use Approval Requirements of this Ordinance:
 - (1) **Zoning.** Small scale solar energy systems are permitted in all zoning districts. Special Use Approval shall not be required prior to the installation of a small scale solar energy system. The Zoning Administrator shall approve the small scale solar energy system and issue a zoning permit if all provisions of this section are met.
 - (2) **Height.** Structures associated with a solar energy system shall have a total height of 15 feet or less. Solar panels attached to an existing structure (including those placed on rooftops) may exceed this height, but shall not cause the structure they are attached to to exceed the maximum permitted height in the Zoning District in question.
 - (3) **Edge of Rooftop.** Solar panels attached to a rooftop shall not extend beyond the edges of the roof.
 - (4) **Setbacks.** Small scale solar energy systems shall not be located in the front yard, and shall be set back at least 25 feet from all side lot lines and 50 feet from the rear lot line.

- (5) **Lot Coverage.** No more than 20% of any lot shall be covered by a small scale solar energy system.
 - (6) **Glare.** Solar energy systems shall be designed and located to avoid glare or reflection onto adjacent lots and adjacent roadways, and shall not interfere with traffic or create a safety hazard off-site.
- (D) **Solar Farms** energy conversion systems and WECS testing facilities shall meet the following standards. An application for a Special use permit shall be filed with the Township pursuant to Section 4.39 as to Special use approvals. Supporting data and documentation must be submitted in their entirety at time of application. Applicant shall provide to the Township updated documents throughout the duration of the WECS application process upon request by the Township Board or Planning Commission.
- (1) **Zoning District.** Solar Farms are allowed only in the AG (Agricultural) zoning district and require a special land use permit and site plan review. In addition to all requirements for a special land use permit under Section 4.39 of the Zoning Ordinance and site plan review and approval under Section 4.38 of the Zoning Ordinance, Solar Farms are also subject to the requirements of this Section 4.51.D.
 - (2) **Application Requirements.** The applicant for a Solar Farm must provide the Township with all of the following:
 - (a) Application fee in an amount set by resolution of the Township Board.
 - (b) The name, address, and phone number of the applicant, any authorized representatives of the applicant, the proposed operator, and the real property owners.
 - (c) A site plan that includes all proposed structures and the location of all equipment, transformers, and substations, as well as all setbacks, panel sizes and locations, and the location of property lines, signage, fences, greenbelts and screening, drain tiles, easements, floodplains, bodies of water, lighting, proposed access routes, land elevations, structures on adjacent parcels, and road right of ways. The site plan must be drawn to scale and must indicate how the Solar Farm will be connected to the power grid.
 - (d) Scaled drawings depicting the location, height, elevation, and size of all components of the Solar Farm.
 - (e) A map and narrative description of the land uses of all non-participating parcels adjacent to the Solar Farm.
 - (f) A list of all parcel numbers that will be used by the Solar Farm; documentation establishing ownership of each parcel; legal descriptions for each parcel; and any lease agreements, easements, letters of intent, or purchase agreements for the subject parcels demonstrating the property owners' consent to include the parcels in the Solar Farm.
 - (g) A plan for managing erosion and sediment control.
 - (h) An operations agreement setting forth the operations parameters, the applicant's inspection protocol, security and emergency procedures, and general safety documentation. The security and emergency procedures must describe how the applicant or operator will prevent unauthorized access to the Solar Farm and warn and protect the public about potential dangers during the construction, operation, removal, maintenance or repair of the Solar Farm.

- (i) Current photographs of the subject property.
- (j) A graphical demonstration (preferably computer-generated) of the Solar Farm as completed.
- (k) A copy of the applicant's power purchase agreement or other written agreement with an electric utility showing approval of an interconnection with the proposed Solar Farm.
- (l) A written plan and schedule for maintaining the subject property, including a plan for maintaining and inspecting drain tiles and addressing stormwater management.
- (m) A decommissioning and land reclamation plan describing the actions to be taken following the abandonment or discontinuation of the Solar Farm, including evidence of proposed commitments with property owners to ensure proper final reclamation, repairs to roads, and other steps necessary to fully remove the Solar Farm and restore the subject parcels.
- (n) An escrow payment that meets the requirements of this Section.
- (o) Financial security that meets the requirements of this Section.
- (p) A plan for resolving complaints from the public or other property owners concerning the construction and operation of the Solar Farm.
- (q) A plan for managing any hazardous waste.
- (r) A description of any electromagnetic interference that may be generated by the Solar Farm.
- (s) A transportation plan for construction and operation phases, including any applicable agreements with the County Road Commission and Michigan Department of Transportation.
- (t) An attestation that the applicant will indemnify and hold the Township harmless from any costs or liability arising from the approval, installation, construction, maintenance, use, repair, or removal of the Solar Farm.
- (u) A copy of the manufacturer's installation instructions.
- (v) An unredacted copy of the manufacturer's safety manual for each component of the Solar Farm without distribution restraints to be kept at the Township Hall and other locations deemed necessary by Planning Commission or local first responders. The Manual should include standard details for an industrial site such as materials, chemicals, fire, access, safe distances during Solar Farm failure, processes in emergencies, etc.
- (w) Proof of environmental compliance, including compliance with Part 31, Water Resources Protection, of the Natural Resources and Environmental Protection Act; (MCL 324.3101 et. seq.; Part 91, Soil Erosion and Sedimentation Control (MCL 324.9101 et. seq.) and any corresponding County ordinances; Part 301, Inland Lakes and Streams, (MCL 324.30101 et. seq.); Part 303, Wetlands (MCL 324.30301 et. seq.); Part 365, Endangered Species Protection (MCL 324.36501 et. seq.); and any other applicable laws and rules in force at the time the application is considered by the Township.
- (x) An environmental impact study that evaluates the environmental impact of the Solar Farm, including its impact on water resources, air quality, wildlife, floodplains, wetlands, unique farmlands or soils, areas of aesthetic or historic important, archeological or cultural concerns, neighboring properties, utilities and infrastructure, noise, and any other relevant factors.

- (y) An estimated construction timeline.
 - (z) Any additional information or documentation requested by the Planning Commission, Township Board, or other Township representative.
- (3) **Permission of Property Owner.** An Applicant must have the legal authority to represent and bind the Participating Landowner, or lessee, who will construct, own, and operate the solar energy system or Testing Facility. The duties and obligations regarding a zoning approval for any approved solar energy system or Testing Facility shall be with the solar energy system or Testing Facility owner, and jointly and severally with the owner, operator, and lessee of the solar energy system or Testing Facility if different than the solar energy system owner.
- (4) **Permitting Costs:** An escrow account shall be set up when the Applicant applies for a Special Use Permit for a Solar Farm and/or testing facility. The monetary amount filed by the Applicant with the Township shall be in an amount estimated by the Township Board to cover all reasonable costs and expenses associated with the special use zoning review and approval process, which costs can include, but are not limited to, fees of officials appointed or contracted with the Township, including the Township Attorney, Township Planner, and Township Engineer, as well as any reports or studies which the Township anticipates it may have done related to the zoning review process for the particular application. Such escrow amount shall include regularly established fees. The Township may require the applicant to replenish the escrow account at any time to ensure a sufficient balance. . If the escrow account needs replenishing and the Applicant refuses to do so within fourteen (14) days after receiving notice, the zoning review and approval process shall cease until and unless the Applicant makes the required escrow deposit. Any escrow amounts which are in excess of actual costs shall be returned to the Applicant within ninety (90) days of permitting process completion. An itemized billing of all expenses shall be provided to the Applicant. The Township shall hire qualified professionals for each and any of the technical fields associated with the Special Use Permit, such as, but not limited to, electrical, acoustics, environment, economics, wildlife, health, and land-use.
- (5) **Height:** Structures associated with a Solar Farm shall have a total height of 15 feet or less when oriented at maximum tilt. Height is measured from the natural grade at the base of the component being measured. Lightning rods may exceed 10 feet in height, but they must be limited to the height necessary to protect the Solar Farm from lightning.
- (6) **Setback:** The following minimum setbacks, measured from the outside edge of the solar panel, or other structure accessory to a Solar Farm, shall be required. The setbacks listed below shall apply to all structures accessory to a Solar Farm.
- (a) From a lot line abutting a lot that is not participating in the solar project and does not contain a residential dwelling unit: 50 feet.
 - (b) From a residential dwelling unit existing at the time of Special Use approval for the Solar Farm: 200 feet from nearest corner of dwelling unit, and 100 feet from all property lines of a non-participating lot containing a dwelling unit. In a case where a Solar Farm already exists, and a landowner proposes to build a dwelling unit nearby, this setback shall not be applied to the dwelling unit.
 - (c) From a public or private roadway: 50 feet, or the required front setback for the zoning district in question, whichever is greater.

(d) There shall be no setback requirement from the lot line of a participating parcel. However, if any solar panel structures are proposed to be placed such that the panel and/or the support structure crosses a property line, the lease agreements for the parcel in question must be submitted to the Township for review and determination of whether the agreement creates any legal, planning, or safety hazard for the Township or its residents. If the agreement does not create a hazard, in the opinion of the Township Board, the agreement to allow a structure to cross property lines shall be approved.

(7) **Substations and accessory buildings:** Structures other than solar panels that are related to a Solar Farm shall be subject to the dimensional and locational standards of structures in the zoning district, rather than the setbacks listed in Section 4.51.D.6. Where structures are visible from adjacent properties, vegetation or manmade screening shall be required to minimize visual impact off-site.

(8) **Landscaping and Buffering:**

(a) **Buffering/Screening:**

(i) Along the property line adjacent to a non-participating lot containing one or more residential dwelling units, within the required setback area, the following plantings are required:

1) Evergreen trees, at least 6 feet high at the time of planting, planted in a staggered double row designed to form a dense visual screen at maturity while still allowing for healthy development of the trees.

2) The Planning Commission shall determine at the time of approval whether the proposed plantings constitute a “dense visual screen” and may require additional plantings, or other design changes to the landscape plan, as a condition of Special Land Use Approval.

(ii) Existing Trees and Woodlands: Existing trees within the required setback area shall be preserved to the extent possible. The Planning Commission may waive Subsection 1.a above upon determining that existing foliage provides a sufficient screen from neighboring residential uses.

(b) **Ground Cover:** Between the solar panels, the ground must be covered by natural vegetation which may include, but is not limited to:

(i) **Native Grasses**, including, but not limited to bluestem, sedge, and bottlebrush.

(ii) **Grazing Grasses**, including, but not limited, to switchgrass, gamma, and Indiangrass.

(iii) **Pollinator Habitat**, including, but not limited to, sunflower, milkweed, and black-eyed susan.

(c) **Fence.** All mechanical equipment including any structure for batteries or storage cells (but not including solar panels), shall be completely enclosed by a six foot high fence with a self-locking gate, and provided with evergreen landscaping that is sufficient to buffer the equipment from view of adjacent streets and lots.

(d) Maintenance: All plantings shall be installed in a design that supports their long-term health and vitality. All plantings shall be maintained in a sound health and vigorous growing condition. The Township may require dead, diseased, damaged, or destroyed species within the required setback area to be replaced with new plantings.

(9) Noise: The noise generated by a Solar Farm must not exceed the following limit:

(a) 40 dB(A) Leq 1 second or 50 dB(C) Leq 1 second, as measured at the property line of any adjacent non-participating parcel.

(b) In addition to the above limitations, a sound barrier of a solid decorative masonry wall or evergreen tree berm, with trees spaced not less than 10 feet apart, must be constructed to reduce noise levels surrounding all inverters. The berm must be no more than 10 feet from all inverters, must be at least as tall as all inverters but not more than three feet taller than the height of all inverters.

(10) Signage: Each Solar Farm shall have one sign per lot, located at the roadside easily visible throughout four seasons. Signs shall be two to four square feet in area. Additional signage on and around the solar panels is recommended. The sign shall contain at least the following. All signage shall meet the requirements of Section 4.41.

(a) Warning high voltage

(b) Participating Land owner's name, Solar Farm owner's name, and operator's name.

(c) Emergency telephone numbers and web address. (list more than one number).

(d) If the Solar Farm uses fencing, place signs on the perimeter fence at fence entrance door.

(e) Unique identification such as address of Solar Farm.

(11) Safety: The solar farm shall meet the following safety requirements:

(a) The Solar Farm shall be designed to prevent unauthorized access to electrical and mechanical components and shall have access doors that are kept securely locked at all times when service personnel are not present.

(b) All hazardous materials shall be properly and safely removed in a timely manner from the site of the Solar Farm.

(c) All collection system wiring shall comply with all applicable safety and stray voltage standards.

(d) Solar farm tower shall not be climbable on the exterior.

(e) An automatic fire suppression system shall be installed at each Solar Farm.

- (12) Applicant Compliance:** The Solar Farm and related equipment shall comply with any and all Federal, State, County and Township requirements, and obtain all necessary permits from all Federal, State, Township, or other government authority prior to the commencement of construction of any Solar Farm.
- (13) Infrastructure Wiring:** All electrical connection systems and lines from the Solar Farm to the electrical grid connection shall be located and maintained underground. Burial depth shall be at a depth that causes no known environmental, land use, or safety issues. Depth shall be a minimum of 6 feet below grade, be deeper than drain tile and be in compliance with NEC 2014 or newer Code standards, whichever depth is greater. The Planning Commission may waive the burial requirement and allow above-ground structures in limited circumstances, such as geography precludes, or a demonstrated benefit to the Township. The waiver shall not be granted solely on cost savings to Applicant. In deciding whether to waive the requirements of this section, the Planning Commission will consider aesthetics, future use of land, and the effect on nearby landowners.
- (14) Road Damage:** The Applicant and/or its contractor shall inform the Ingham County Road Commission (ICRC) and the Township of all the roads they propose to use as haul routes to each construction (including repair and decommissioning) site. This shall be done prior to beginning any construction (or decommissioning) at any site. A third-party road inspector will be retained, with mutual approval of the Township, the Applicant, and the ICRC or the Michigan Department of Transportation (MDOT) if a state highway is involved. The road inspector will determine any precautions to be taken (including video taping and physical inspections) during the process, to determine any damage that may be caused by Applicant's contractor(s), and then determine the appropriate road standards and measures to be taken to repair the damage. The cost of the third party road inspector and/or any other required third party assistance, and of all repairs necessitated to restore the roads [and related property which may be damaged by the contractor(s)], shall be the responsibility of the Applicant and/or their contractor, and shall in no case be the responsibility of the Township.

In order to assure the funds will be available to perform the work described above, the Applicant will be required to post financial security acceptable to the Township, in the form of: a) a surety bond from a surety listed as acceptable on the Federal Surety Bond circular 570 of the U.S. Department of Treasury; or b) an acceptable letter of credit; or c) an escrow account established in a financial institution licensed in the State of Michigan. The amount of the security shall be a minimum of one million two hundred fifty thousand dollars (\$1,250,000), but this amount may be increased if the third-party consultant determines the amount needed for road repairs is greater than this amount. The bond (or other security) shall only be released (in whole or part) when the Township Board, in consultation with ICRC and the third party inspector, determines that all required road work has been completed and approved by ICRC and/or MDOT.

- (15) Construction Codes, Towers, & Interconnection Standards:** Solar farms shall comply with all applicable state construction and electrical codes and local building permit requirements. An interconnected Solar Farm shall comply with Michigan Public Service Commission (MPSC) and Federal Energy Regulatory Commission (FERC) standards if applicable.
- (16) Liability Insurance:** The current Solar Farm owner and operator shall insure for liability for the Solar Farm in an amount of two million dollars (\$2,000,000) per occurrence, per participating lot, without interruption until removed and comply with section "Site Insurance" (See F.5) to make certain funds are available to resolve damage/injury claims.

- (17) Protection of Adjoining Property:** In addition to the other requirements and standards contained in this section, the Planning Commission shall not approve any Solar Farm unless it finds that the Solar Farm will not pose a safety hazard or unreasonable risk of harm to the occupants of any adjoining properties or area wildlife.
- (18) Operational, Maintenance, and Issue Resolution:** Each Solar Farm and Testing Facility must be kept and maintained in good repair and condition at all times. If a Solar Farm is not maintained in operational and reasonable condition or poses a potential safety hazard, the Applicant shall take expeditious action to correct the situation, including Solar Farm removal. The Applicant shall keep a maintenance log on each Solar Farm and must provide complete log to the Township within thirty (30) days of request. To assure compliance with this requirement, an annual audit of maintenance records, conducted by a qualified third-party maintenance expert acceptable to the Township, shall be completed at the expense of the owner/operator of the turbine, and a copy of this report provided as specified by the Township.
- (19) Inspection:** The Township shall have the right upon issuing any Solar Farm special use permit to inspect the premises on which each Solar Farm is located at any reasonable time. The Township may hire a consultant to assist with any such inspections at a reasonable cost to be charged to the operator of the Solar Farm.
- (20) Repair Documentation:** Applicant must provide a detailed policy and process book for the repair, replacement, and removal of malfunctioning, defective, worn, or noncompliant Solar Farm. Sections of the process book should consider any ordinance requirement or Solar Farm performance deficiency. The process book shall also include a detailed maintenance schedule.
- (21) Complaint Resolution:** It is the intent of this ordinance to provide a mechanism to address and resolve complaints prior to the expenditure of significant funds by the Township and/or operator for investigation and resolution. Therefore, the Township shall perform an initial vetting of complaints prior to requesting funds from the operator for complaint resolution efforts. If the Township determines that the complaint has merit, the complaint shall be resolved in the following manner:
- (a)** Complaints shall be submitted to the Township in writing from the affected property owner, or written designee, including name, address, contact information, and specific complaint. The complaint shall be added to the agenda of the next Township Board meeting in accordance with the procedure for setting the agenda.
 - (b)** The Township shall submit to the operator of record notice of all written complaints to the Township within thirty (30) days of receipt of any complaint. Complaints received by the Township and the date of any Township Board meeting where complaints may be considered shall be communicated to the owner-operator at least 10 days prior. The notice shall state that the Township Board may determine that the Solar Farm, as well as the owner-operator, is in violation of its permit.
 - (c)** Upon review, if the Township Board, by an affirmative vote of the majority of the members present, deems a complaint sufficient to warrant an investigation, the Township Board shall notify the owner(s) and/or operator of the Solar Farm that an investigation has been requested by the Board.

- (d) Owner operator shall be required as a condition of the operation to fund an escrow account for investigation of complaints for, but not limited to, shadow flicker, stray voltage, noise, and signal interference in the amount of \$15,000.00 to be used at the discretion of the Township Board to pay for third party investigative services. Such funds shall be deposited with the Township Treasurer, or with a third-party fiduciary, at the discretion of the Township. When the escrow account balance is below \$5,000.00 the Township shall notify the Applicant and the Applicant shall replenish the account in the amount of \$15,000.00 within 45 days.
 - (e) If the Solar Farm is found in violation of this ordinance, the owner(s) and/or operator shall take immediate action to bring the Solar Farm into compliance. If the operator fails to bring the operation into compliance within thirty (30) days, the Township may seek any relief at law or equity to abate the nuisance and may also issue a municipal civil infraction citation. Each violation for which the owner(s) and/or operators are deemed responsible shall result in a \$500.00 fine. Each day of non-compliance shall be a separate offense.
 - (f) Any Solar Farm found by the Township Board to be in violation of this ordinance set forth herein shall be considered a nuisance and the Township Board may, following notice and a public hearing, order that the Solar Farm operations cease until such time as the Solar Farm owner/operator can demonstrate compliance with the requirements of this ordinance.
- (22) Abandonment:** Any Solar Farm, or individual solar panel that is a component of a Solar Farm, that is not used to produce energy for a period of six (6) successive months or longer shall be deemed to be abandoned and shall be promptly dismantled and removed from the property in accordance with the decommissioning regulations of this ordinance, unless the applicant receives a written extension of that period from the Township Board in a case involving an extended repair schedule for good cause.
- (23) Removal and Site Renovation:** A condition of every approval shall be adequate provision for the removal of the structure whenever it ceases to actively produce power for one hundred eighty (180) days or more. The Planning Commission can grant an extension of an additional one hundred eighty (180) days upon the Solar Farm owner demonstrating that the structure will be put back into use. Removal shall include the proper receipt of a demolition permit from the Building Official and proper restoration of the site, including but not limited to all participating parcels, to original condition. Removal of the structure, wiring, and its accessory use facilities shall include removing the caisson (foundation) and all other components in their entirety, to a depth of at least six (6) feet below grade. Restoration must be completed within 365 days of non-operation. If repair is allowed, the Solar Farm owner must provide data indicating the repaired Solar Farm is in good operational condition and functioning at an efficiency similar to surrounding Solar Farm.
- (24) Decommissioning:** To ensure proper removal of each Solar Farm structure when it is abandoned or non-operational, application for a Special use permit shall include a proof of the financial security in effect before permit is approved. The security shall be in a form acceptable to the Township. These should be reviewed by the Township Attorney and approved by the Planning Commission.
- (a) The amount of each Solar Farm security guarantee, shall be 125% of the average of at least two independent (applicant) demolition (removal) quotes obtained by the Township. If the quantity of quotes obtained is two (2), the formula should be (quote 1 + quote 2) divided by two (2). . Quotes shall be ordered and obtained by the Township from established demolition companies. Quotes shall not include salvage values. The security guarantee shall be updated every two (2) years at the rate of 1.5 times CPI (consumer price index) for each year.

- (b) Such financial guarantee shall be deposited with the Township Treasurer, or with a third-party fiduciary, at the discretion of the Township, after a special use has been approved but before construction operations begin on the Solar Farm project. Failure to keep such financial security in full force and effect at all times while the structure exists shall constitute a material and significant violation of any special use approval and this ordinance, and shall subject the Applicant to all available remedies to the Township, including, but not limited to, enforcement action, fines, revocation of the special use approval and Solar Farm removal.
 - (c) If the applicant or operator fails to timely decommission the Solar Farm as required under this Ordinance, then the Township may draw from the financial security to decommission the Solar Farm and to pay any costs associated with decommissioning, including legal fees and expenses.
 - (d) The Applicant shall be responsible for the payment of all attorney fees and other costs incurred by the Township in the event that the structure is not voluntarily removed and the Township has to enforce removal.
- (25) Transfer or Sale:** In the event of a transfer or sale of the Solar Farm, the Township shall be notified and the Special use permit may be amended administratively by the Township board.
- (a) Change in ownership alone shall be considered a minor amendment to the Special use and may be approved administratively without a public hearing.
 - (b) Any proposed changes to the operating procedure or approved site plan shall be amended and resubmitted for Township review according to the procedures for all Solar Farm as outlined herein, including a public hearing.
 - (c) Upon transfer or sale, the cash bond (or form of security acceptable to the Township) shall be maintained at all times, the estimated costs of decommissioning shall be resubmitted, and the security bond adjusted to account for the new estimate.