

STATE OF MICHIGAN

BEFORE THE MICHIGAN PUBLIC SERVICE COMMISSION

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In the matter of the application of)
DTE ELECTRIC COMPANY for approval of its)
integrated resource plan pursuant to) Case No. U-20471
MCL 460.6t and for other relief.)
_____)

In the matter, on the Commission's own motion,)
establishing the method and avoided cost calculation)
for **DTE ELECTRIC COMPANY** to fully) Case No. U-18091
comply with the Public Utility Regulatory Policies)
Act of 1978, 16 USC 2601 *et seq.*)
_____)

In the matter, on the Commission's own motion,)
regarding the regulatory reviews, revisions,)
determinations, and approvals necessary for) Case No. U-18232
DTE ELECTRIC COMPANY to fully)
comply with Public Act 295 of 2008.)
_____)

At the February 20, 2020 meeting of the Michigan Public Service Commission in Lansing,
Michigan.

PRESENT: Hon. Sally A. Talberg, Chairman
Hon. Daniel C. Scripps, Commissioner
Hon. Tremaine L. Phillips, Commissioner

ORDER

History of Proceedings

On March 29, 2019, DTE Electric Company (DTE Electric) filed an application, with
supporting testimony and exhibits, for approval of an integrated resource plan (IRP) pursuant to:

(1) Section 6t of 2016 PA 341 (Act 341), MCL 460.6t; (2) the November 21, 2017 order in Case No. U-18418, Exhibit A, which approved the Michigan Integrated Resource Planning Parameters (MIRPP); (3) the December 20, 2017 order in Case No. U-18461, Attachment A, which approved the Integrated Resource Plan Filing Requirements (IRP Filing Requirements); and (4) the IRP requirements specific to DTE Electric set out in the April 27, 2018 order in Case No. U-18419 addressing requests for a certificate of need (CON), pp. 78, 80, 115-116, 120, and 126-127 (CON order). Application, pp. 2-6. DTE Electric filed revised testimony on June 28 and July 17, 2019.

On April 26, 2019, a prehearing conference was held before Administrative Law Judge Sally L. Wallace (ALJ), at which intervention was granted to the Michigan Department of the Attorney General (Attorney General); the Association of Businesses Advocating Tariff Equity (ABATE); Energy Michigan, Inc.; Environmental Law and Policy Center/Ecology Center/Solar Energy Industries Association/Union of Concerned Scientists/Vote Solar (collectively, ELPC *et al.*); Great Lakes Renewable Energy Association (GLREA); Michigan Energy Innovation Business Council/Institute for Energy Innovation (together, MEIBC/IEI); Michigan Environmental Council (MEC)/Natural Resources Defense Council (NRDC)/Sierra Club (SC) (collectively, MEC/NRDC/SC); City of Ann Arbor (Ann Arbor); Geronimo Energy (Geronimo); Soulardarity; ITC Transmission Company, d/b/a ITC *Transmission* (ITC); Cypress Creek Renewables; Convergen Energy; Midland Cogeneration Venture Limited Partnership; Heelstone Development; and the Michigan Public Power Agency. The Commission Staff (Staff) also participated.

On April 29, 2019, the ALJ entered a protective order.

On June 20, 2019, the Commission held a public hearing in Detroit at Wayne County Community College and received public comment.

On July 8, 2019, DTE Electric filed a stipulation and agreement by all parties to extend the schedule for the proceedings by 28 days and waive the statutory deadlines in MCL 460.6t(7); and a revised schedule was adopted on July 9, 2019.

On August 28, 2019, the Department of Environment, Great Lakes, and Energy (EGLE) filed an Advisory Opinion (Advisory Opinion) concerning potential decreases in emissions of sulfur dioxide (SO₂), oxides of nitrogen (NO_x), mercury, and particulate matter (PM) resulting from the IRP, in accordance with MCL 460.6t(7).

Evidentiary hearings were held on October 2-4 and 7-9, 2019. Timely briefs and reply briefs were filed, and the ALJ issued a Proposal for Decision (PFD) on December 23, 2019. Exceptions were filed by GLREA, ELPC *et al.*, MEC/NRDC/SC, the Attorney General, Soulardarity, the Staff, and DTE Electric on January 9, 2020, and replies to exceptions were filed by ITC, ELPC *et al.*, Geronimo, Energy Michigan, the Staff, GLREA, Ann Arbor, the Attorney General, ABATE, DTE Electric, MEIBC/IEI, and MEC/NRDC/SC on January 21, 2020. The record consists of 3,385 pages of transcript and 438 exhibits admitted into evidence.¹ Portions of the transcript and certain exhibits were filed confidentially pursuant to the protective order. More than 5,000 comments were also filed in the docket. The vast majority of the comments urge the Commission to reject the IRP, and to direct the utility to increase its use of renewable energy.

Applicable Law

MCL 460.6t(3) sets forth when an electric utility must file its first IRP and provides as follows:

Not later than 2 years after the effective date of the amendatory act that added this section, each electric utility whose rates are regulated by the commission shall file with the commission an integrated resource plan that provides a 5-year, 10-year,

¹ The ALJ provides a detailed description of the testimony and positions of the parties in the PFD, pp. 5-89.

and 15-year projection of the utility's load obligations and a plan to meet those obligations, to meet the utility's requirements to provide generation reliability, including meeting planning reserve margin and local clearing requirements determined by the commission or the appropriate independent system operator, and to meet all applicable state and federal reliability and environmental regulations over the ensuing term of the plan. The commission shall issue an order establishing filing requirements, including application forms and instructions, and filing deadlines for an integrated resource plan filed by an electric utility whose rates are regulated by the commission. The electric utility's plan may include alternative modeling scenarios and assumptions in addition to those identified under subsection (1).

In compliance with MCL 460.6t(1)-(3), the Commission adopted the MIRPP and the IRP Filing Requirements.

MCL 460.6t(5) governs the contents of the IRP, and provides that an electric utility's IRP must include the following:

- (a) A long-term forecast of the electric utility's sales and peak demand under various reasonable scenarios.
- (b) The type of generation technology proposed for a generation facility contained in the plan and the proposed capacity of the generation facility, including projected fuel costs under various reasonable scenarios.
- (c) Projected energy purchased or produced by the electric utility from a renewable energy resource. If the level of renewable energy purchased or produced is projected to drop over the planning periods set forth in subsection (3), the electric utility must demonstrate why the reduction is in the best interest of ratepayers.
- (d) Details regarding the utility's plan to eliminate energy waste, including the total amount of energy waste reduction expected to be achieved annually, the cost of the plan, and the expected savings for its retail customers.
- (e) An analysis of how the combined amounts of renewable energy and energy waste reduction achieved under the plan compare to the renewable energy resources and energy waste reduction goal provided in section 1 of the clean and renewable energy and energy waste reduction act, 2008 PA 295, MCL 460.1001. This analysis and comparison may include renewable energy and capacity in any form, including generating electricity from renewable energy systems for sale to retail customers or purchasing or otherwise acquiring renewable energy credits with or without associated renewable energy, allowed under section 27 of the clean and renewable energy and energy waste reduction act, 2008 PA 295, MCL 460.1027, as it existed before the effective date of the amendatory act that added this section.

(f) Projected load management and demand response savings for the electric utility and the projected costs for those programs.

(g) Projected energy and capacity purchased or produced by the electric utility from a cogeneration resource.

(h) An analysis of potential new or upgraded electric transmission options for the electric utility.

(i) Data regarding the utility's current generation portfolio, including the age, capacity factor, licensing status, and remaining estimated time of operation for each facility in the portfolio.

(j) Plans for meeting current and future capacity needs with the cost estimates for all proposed construction and major investments, including any transmission or distribution infrastructure that would be required to support the proposed construction or investment, and power purchase agreements.

(k) An analysis of the cost, capacity factor, and viability of all reasonable options available to meet projected energy and capacity needs, including, but not limited to, existing electric generation facilities in this state.

(l) Projected rate impact for the periods covered by the plan.

(m) How the utility will comply with all applicable state and federal environmental regulations, laws, and rules, and the projected costs of complying with those regulations, laws, and rules.

(n) A forecast of the utility's peak demand and details regarding the amount of peak demand reduction the utility expects to achieve and the actions the utility proposes to take in order to achieve that peak demand reduction.

(o) The projected long-term firm gas transportation contracts or natural gas storage the electric utility will hold to provide an adequate supply of natural gas to any new generation facility.

MCL 460.6t(6) sets out certain additional requirements in the event the utility proposes to add supply-side resources:

Before filing an integrated resource plan under this section, each electric utility whose rates are regulated by the commission shall issue a request for proposals to provide any new supply-side generation capacity resources needed to serve the utility's reasonably projected electric load, applicable planning reserve margin, and local clearing requirement for its customers in this state and customers the utility

serves in other states during the initial 3-year planning period to be considered in each integrated resource plan to be filed under this section. An electric utility shall define qualifying performance standards, contract terms, technical competence, capability, reliability, creditworthiness, past performance, and other criteria that responses and respondents to the request for proposals must meet in order to be considered by the utility in its integrated resource plan to be filed under this section. Respondents to a request for proposals may request that certain proprietary information be exempt from public disclosure as allowed by the commission. A utility that issues a request for proposals under this subsection shall use the resulting proposals to inform its integrated resource plan filed under this section and include all of the submitted proposals as attachments to its integrated resource plan filing regardless of whether the proposals met the qualifying performance standards, contract terms, technical competence, capability, reliability, creditworthiness, past performance, or other criteria specified for the utility's request for proposals under this section. An existing supplier of electric generation capacity currently producing at least 200 megawatts of firm electric generation capacity resources located in the independent system operator's zone in which the utility's load is served that seeks to provide electric generation capacity resources to the utility may submit a written proposal directly to the commission as an alternative to any supply-side generation capacity resource included in the electric utility's integrated resource plan submitted under this section, and has standing to intervene in the contested case proceeding conducted under this section. This subsection does not require an entity that submits an alternative under this subsection to submit an integrated resource plan. This subsection does not limit the ability of any other person to submit to the commission an alternative proposal to any supply-side generation capacity resource included in the electric utility's integrated resource plan submitted under this section and to petition for and be granted leave to intervene in the contested case proceeding conducted under this section under the rules of practice and procedure of the commission. The commission shall only consider an alternative proposal submitted under this subsection as part of its approval process under subsection (8). The electric utility submitting an integrated resource plan under this section is not required to adopt any proposals submitted under this subsection. To the extent practicable, each electric utility is encouraged, but not required, to partner with other electric providers in the same local resource zone as the utility's load is served in the development of any new supply-side generation capacity resources included as part of its integrated resource plan.

MCL 460.6t(7) explains both the procedure to be followed in the review and amendment of an IRP and how the Commission may use the advisory opinion provided by EGLE² in an IRP proceeding. MCL 460.6t(7) states:

Not later than 300 days after an electric utility files an integrated resource plan under this section, the commission shall state if the commission has any recommended changes, and if so, describe them in sufficient detail to allow their incorporation in the integrated resource plan. If the commission does not recommend changes, it shall issue a final, appealable order approving or denying the plan filed by the electric utility. If the commission recommends changes, the commission shall set a schedule allowing parties at least 15 days after that recommendation to file comments regarding those recommendations, and allowing the electric utility at least 30 days to consider the recommended changes and submit a revised integrated resource plan that incorporates 1 or more of the recommended changes. If the electric utility submits a revised integrated resource plan under this section, the commission shall issue a final, appealable order approving the plan as revised by the electric utility or denying the plan. The commission shall issue a final, appealable order no later than 360 days after an electric utility files an integrated resource plan under this section. Up to 150 days after an electric utility makes its initial filing, the electric utility may file to update its cost estimates if those cost estimates have materially changed. A utility shall not modify any other aspect of the initial filing unless the utility withdraws and refiles the application. A utility's filing updating its cost estimates does not extend the period for the commission to issue an order approving or denying the integrated resource plan. The commission shall review the integrated resource plan in a contested case proceeding conducted pursuant to chapter 4 of the administrative procedures act of 1969, 1969 PA 306, MCL 24.271 to 24.287. The commission shall allow intervention by interested persons including electric customers of the utility, respondents to the utility's request for proposals under this section, or other parties approved by the commission. The commission shall request an advisory opinion from the department of environmental quality regarding whether any potential decrease in emissions of sulfur dioxide, oxides of nitrogen, mercury, and particulate matter would reasonably be expected to result if the integrated resource plan proposed by the electric utility under subsection (3) was approved and whether the integrated resource plan can reasonably be expected to achieve compliance with the regulations, laws, or rules identified in subsection (1). The commission may take official notice of the opinion issued by the department of environmental quality under this subsection pursuant to R 792.10428 of the Michigan Administrative Code. Information submitted by the department of environmental quality under this subsection is advisory and is not binding on future determinations by the department of environmental quality or the commission in any proceeding or

² Under Executive Order 2019-06, the Michigan Department of Environmental Quality became EGLE, effective April 22, 2019.

permitting process. This section does not prevent an electric utility from applying for, or receiving, any necessary permits from the department of environmental quality. The commission may invite other state agencies to provide testimony regarding other relevant regulatory requirements related to the integrated resource plan. The commission shall permit reasonable discovery after an integrated resource plan is filed and during the hearing in order to assist parties and interested persons in obtaining evidence concerning the integrated resource plan, including, but not limited to, the reasonableness and prudence of the plan and alternatives to the plan raised by intervening parties.

Following the requirements set forth in MCL 460.6t(5) and (7), MCL 460.6t(8) states that the Commission shall approve the IRP if it determines all of the following:

- (a) The proposed integrated resource plan represents the most reasonable and prudent means of meeting the electric utility's energy and capacity needs. To determine whether the integrated resource plan is the most reasonable and prudent means of meeting energy and capacity needs, the commission shall consider whether the plan appropriately balances all of the following factors:
 - (i) Resource adequacy and capacity to serve anticipated peak electric load, applicable planning reserve margin, and local clearing requirement.
 - (ii) Compliance with applicable state and federal environmental regulations.
 - (iii) Competitive pricing.
 - (iv) Reliability.
 - (v) Commodity price risks.
 - (vi) Diversity of generation supply.
 - (vii) Whether the proposed levels of peak load reduction and energy waste reduction are reasonable and cost effective. Exceeding the renewable energy resources and energy waste reduction goal in section 1 of the clean and renewable energy and energy waste reduction act, 2008 PA 295, MCL 460.1001, by a utility shall not, in and of itself, be grounds for determining that the proposed levels of peak load reduction, renewable energy, and energy waste reduction are not reasonable and cost effective.
- (b) To the extent practicable, the construction or investment in a new or existing capacity resource in this state is completed using a workforce composed of residents of this state as determined by the commission. This subdivision does not apply to a capacity resource that is located in a county that lies on the border with another state.

(c) The plan meets the requirements of subsection (5).

MCL 460.6t(9)-(10) address circumstances where the Commission denies an IRP, and provide for additional proceedings as follows:

(9) If the commission denies a utility's integrated resource plan, the utility, within 60 days after the date of the final order denying the integrated resource plan, may submit revisions to the integrated resource plan to the commission for approval. The commission shall commence a new contested case hearing under chapter 4 of the administrative procedures act of 1969, 1969 PA 306, MCL 24.271 to 24.287. Not later than 90 days after the date that the utility submits the revised integrated resource plan to the commission under this subsection, the commission shall issue an order approving or denying, with recommendations, the revised integrated resource plan if the revisions are not substantial or inconsistent with the original integrated resource plan filed under this section. If the revisions are substantial or inconsistent with the original integrated resource plan, the commission has up to 150 days to issue an order approving or denying, with recommendations, the revised integrated resource plan.

(10) If the commission denies an electric utility's integrated resource plan, the electric utility may proceed with a proposed construction, purchase, investment, or power purchase agreement contained in the integrated resource plan without the assurances granted under this section.

MCL 460.6t(11) concerns the approval of costs associated with an approved IRP:

In approving an integrated resource plan under this section, the commission shall specify the costs approved for the construction of or significant investment in an electric generation facility, the purchase of an existing electric generation facility, the purchase of power under the terms of the power purchase agreement, or other investments or resources used to meet energy and capacity needs that are included in the approved integrated resource plan. The costs for specifically identified investments, including the costs for facilities under subsection (12), included in an approved integrated resource plan that are commenced within 3 years after the commission's order approving the initial plan, amended plan, or plan review are considered reasonable and prudent for cost recovery purposes.

And MCL 460.6t(17) explains the recovery of costs pursuant to MCL 460.6t(11), specifically providing:

The commission shall include in an electric utility's retail rates all reasonable and prudent costs specified under subsections (11) and (12) that have been incurred to implement an integrated resource plan approved by the commission. The

commission shall not disallow recovery of costs an electric utility incurs in implementing an approved integrated resource plan, if the costs do not exceed the costs approved by the commission under subsections (11) and (12). If the actual costs incurred by the electric utility exceed the costs approved by the commission, the electric utility has the burden of proving by a preponderance of the evidence that the costs are reasonable and prudent. The portion of the cost of a plant, facility, power purchase agreement, or other investment in a resource that meets a demonstrated need for capacity that exceeds the cost approved by the commission is presumed to have been incurred due to a lack of prudence. The commission may include any or all of the portion of the cost in excess of the cost approved by the commission if the commission finds by a preponderance of the evidence that the costs are reasonable and prudent. The commission shall disallow costs the commission finds have been incurred as the result of fraud, concealment, gross mismanagement, or lack of quality controls amounting to gross mismanagement. The commission shall also require refunds with interest to ratepayers of any of these costs already recovered through the electric utility's rates and charges. If the assumptions underlying an approved integrated resource plan materially change, or if the commission believes it is unlikely that a project or program will become commercially operational, an electric utility may request, or the commission on its own motion may initiate, a proceeding to review whether it is reasonable and prudent to complete an unfinished project or program included in an approved integrated resource plan. If the commission finds that completion of the project or program is no longer reasonable and prudent, the commission may modify or cancel approval of the project or program and unincurred costs in the electric utility's integrated resource plan. Except for costs the commission finds an electric utility has incurred as the result of fraud, concealment, gross mismanagement, or lack of quality controls amounting to gross mismanagement, if commission approval is modified or canceled, the commission shall not disallow reasonable and prudent costs already incurred or committed to by contract by an electric utility. Once the commission finds that completion of the project or program is no longer reasonable and prudent, the commission may limit future cost recovery to those costs that could not be reasonably avoided.

MCL 460.6t(20)-(21) address the review of an IRP, as follows:

(20) An electric utility shall file an application for review of its integrated resource plan not later than 5 years after the effective date of the most recent commission order approving a plan, a plan amendment, or a plan review. The commission shall consider a plan review under the same process and standards established in this section for review and approval of an integrated resource plan. A commission order approving a plan review has the same effect as an order approving an integrated resource plan.

(21) The commission may, on its own motion or at the request of the electric utility, order an electric utility to file a plan review. The department of environmental quality may request the commission to order a plan review to address material

changes in environmental regulations and requirements that occur after the commission's approval of an integrated resource plan. An electric utility must file a plan review within 270 days after the commission orders the utility to file a plan review.

Specific to the transmission analysis, the IRP Filing Requirements, pp. 17-18, provide as follows:

In accordance with MCL 460.6t(5)(h), the utility shall include an analysis of potential new or upgraded electric transmission options for the utility. The utility's analysis shall include the following information:

- a) The utility shall assess the need to construct new, or modify existing transmission facilities to interconnect any new generation and shall reflect the estimated costs of those transmission facilities in the analyses of the resource options;
- b) A detailed description of the utility's efforts to engage local transmission owners in the utility's IRP process in an effort to inform the IRP process and assumptions, including a summary of meetings that have taken place;
- c) Current transmission system import and export limits as most recently documented by the RTO [regional transmission organization] and any local area constraints or congestion concerns;
- d) Any information provided by the transmission owner(s) indicating the anticipated effects of fleet changes proposed in the IRP on the transmission system, including both generation retirements and new generation, subject to confidentiality provisions;
- e) Any information provided by the transmission owner(s), including cost and timing, indicating potential transmission options that could impact the utility's IRP by: (1) increasing import or export capability; (2) facilitating power purchase agreements or sales of energy and capacity both within or outside the planning zone or from neighboring RTOs; (3) transmission upgrades resulting in increasing system efficiency and reducing line loss allowing for greater energy delivery and reduced capacity need; and (4) advanced transmission and distribution network technologies affecting supply-side resources or demand-side resources.

Additionally, in the CON order the Commission directed DTE Electric to include additional detail on transmission, battery storage, and rate impacts as part of its IRP filing.

Addressing transmission-related elements, the Commission stated:

[I]n DTE Electric’s 2019 IRP, the Commission expects a far more robust analysis of transmission opportunities that might defer, displace, or optimize the amount, type, and location of additional generation based on up-to-date information about current and expected transmission system conditions and import/export capabilities. To ensure alternatives are fully considered in future IRP proceedings, and the system is optimized from a cost and reliability standpoint, the Commission also expects DTE to work closely and collaboratively with ITC and other transmission owners to explore transmission solutions and to work toward integrating the company’s distribution planning efforts with resource planning.

CON order, pp. 115-116.

On battery storage, the Commission directed DTE Electric to “include a better evaluation of storage options, including a quantification of storage benefits including flexibility, grid support, and ancillary services.” CON order, p. 80.

Finally, on rate impacts, the CON order contained this directive:

[I]t is important to be transparent about the actual rate impacts from the proposed plant. The Commission is not required to make any findings with respect to customer rates under Section 6s(4), but nevertheless finds that DTE Electric shall provide a straightforward analysis of how customer rates are expected to change as a result of the Tier 2 unit retirements and the addition of the NGCC plant over the first ten years of operation. The Commission is also interested in understanding the impact to rates if some or all of the unrecovered book value associated with the coal plant retirements were removed from rate base and addressed through securitization or other financial measures, rather than recovery through traditional depreciation schedules. While the Commission is not making a final determination on the unrecovered costs of the retiring plants, it is nevertheless interested in the impact that different options may have on customer rates.

CON order, p. 120.

Discussion

This section of the order contains the Commission’s findings on the disputed issues, which appear in the same order in which they were addressed in the PFD. The Commission’s decisions fall into three categories: (1) elements of the IRP, as filed, that are accepted, subject to their inclusion in a revised IRP; (2) elements of the filed IRP for which the Commission recommends a

change under Section 6t(7); and (3) elements of the IRP for which the Commission directs the company to add additional detail when it files its next IRP. With respect to several IRP elements, the Commission finds that, in light of the rapid technological and resource changes taking place in the energy landscape, the Commission requires greater consideration of certain technologies and updates to the IRP Filing Requirements and MIRPP. Additionally, certain fundamental flaws in the IRP as filed meant that the intended examination of new supply-side resources was not possible, and affected many of the decisions made herein.

Specifically, this order recommends a number of changes to DTE Electric's incorporation of demand-side resources and other elements. Because of the significant deficiencies in the record, including a starting point that included a range of non-approved and non-optimized resources and the failure to issue a request for proposals (RFP) for supply-side resource additions, the Commission is recommending the removal of all supply-side resource additions from the plan, and expresses its intent to review these proposals as part of an accelerated renewable energy plan (REP) amendment proceeding, to review the company's capacity position as part of an accelerated review under the Public Utility Regulatory Policies Act of 1978 (PURPA), 16 USC 824a-3, and to review a truly integrated approach that considers both demand-side and supply-side resources as part of the company's next IRP under an accelerated schedule.

The Commission notes that such a path, while obviously suboptimal, is the best available path forward given three specific elements of the IRP statute. First, under MCL 460.6t(7), if the Commission recommends changes as part of its 300-day order, parties must have at least 15 days to file comments regarding the recommendations, and the utility has at least 30 days to file a revised IRP, at which point the Commission must issue a final order not later than 360 days after the initial plan was filed. The Commission is authorized to recommend changes, but the

proceeding must be fully contested and all decisions must be based on the record. Given the limited time for additional consideration, it may not be possible for DTE Electric to address the fundamental deficiencies of its initial plan – including issuing an RFP for supply-side additions, and incorporating these bids into a fully optimized IRP that removes the assumptions baked into the starting point of the current IRP – within the timeframe outlined in the statute.

Second, under MCL 460.6t(9), if the Commission denies the IRP, “the utility, within 60 days of the final order . . . , *may* submit” a revised IRP, at which time the Commission has up to 150 days to issue an order. MCL 460.6t(9) (emphasis added). Again, given the limited time available for the utility to submit such a revised IRP considering the fundamental issues that would need to be addressed, it may not be possible to meet the statutory timeline. In addition, as noted above, the decision of whether to file a revised IRP following a denial rests solely with the utility.

Finally, the statute does not provide clear direction to the utility when an IRP is denied by the Commission, other than that the utility “may proceed with a proposed construction, purchase, investment, or power purchase agreement contained in the integrated resource plan without the assurances granted under this section.” MCL 460.6t(10).

Given these statutory wrinkles, the Commission finds the most prudent course is to narrow the scope of the IRP to its core elements surrounding demand-side activities to be undertaken within the first three years following a final order, defer consideration of supply-side renewable resource additions to the next REP filing under an accelerated schedule, defer consideration of DTE Electric’s capacity outlook to its next PURPA review under an accelerated schedule, and defer consideration of the full plan to its next IRP filing under an accelerated schedule.

This is not to say, however, that the Commission will approve the limited plan without the changes identified herein. Should DTE Electric fail to file a revised IRP that substantially adopts

the recommended changes, the Commission will be left with little alternative but to deny the IRP. Alternatively, the company could elect to rectify the fundamental deficiencies of the IRP by refiling an application pursuant to MCL 460.6t(7) or requesting an extension of the statutory timelines to allow sufficient time to introduce a new or existing RFP into the record in this matter, redo its IRP from a more appropriate starting point, and provide an opportunity for the parties to engage in discovery and cross-examination of any new evidence.

A. Proposed Courses of Action and Approvals (MCL 460.6t(3))

The application contains a fixed proposed course of action (PCA) for 2020-2024 (defined PCA) as follows:

- a. Additional 11 MW [megawatts] of solar plus storage pilot projects;
- b. Additional 693 MW of wind energy;
- c. Additional Voluntary Green Pricing (VGP) program renewables (MIGreenPower) between 465 MW and 715 MW depending upon subscription levels;
- d. Acceleration of previously announced retirement of the Trenton Channel Power Plant to 2022;
- e. Acceleration of previously announced retirement of St. Clair Power Plant Unit 7 to 2022;
- f. Accelerated retirement of St. Clair Unit 1 to 2019;
- g. River Rouge Unit 3 will end the use of coal in 2020, and will continue to operate until 2022 on recycled industrial gases and natural gas;
- h. Increase Energy Waste Reduction (“EWR”) programs to achieve annual energy savings to 1.65% in 2020 and 1.75% in 2021;
- i. Increase Demand Response (“DR”) programs to 859 MW by 2024; and
- j. Conduct a Conservation Voltage Reduction and Volt-Var Optimization (“CVR/VVO”) pilot program by 2020.

Application, pp. 2-3. For the 2025-2035 period, DTE Electric proposed a “flexible” PCA, comprised of four hypothetical pathways (A, B, C, and D), and incorporates the following:

- a. The Company will continue to build renewables to support our clean energy and carbon reduction goals, and expects to add 525 MW of solar between 2025 - 2030, with another 2000 MW of solar by 2040;
- b. The EWR program levels will be analyzed in subsequent IRPs, but it is expected that the 1.75% annual reduction level of EWR that begins in 2021 would at least be continued through 2040;
- c. DR program levels will be analyzed in subsequent IRPs, but it is expected that the 859 MW that is expected to be achieved by 2024 will at least be maintained at that level through 2040;
- d. Building on the momentum of our current VGP programs, we have included up to 675 MW of voluntary renewable energy between 2025 and 2030;
- e. Belle River Units 1 and 2 are currently expected to retire in 2029 and 2030 respectively, but that retirement timing will be reevaluated in the next IRP;
- f. Monroe Power Plant is planned for retirement by 2040, but that retirement timing will be reevaluated in the next IRP;
- g. CVR/VVO will be analyzed in subsequent IRPs (50 MW by 2030 included in two of the four potential pathways in the flexible years of the PCA);
- h. Additional generation resources will be analyzed in the next IRP. There is a combined cycle gas addition in two of the four potential pathways in the flexible years of the PCA. The size of the potential gas addition would be a 414 MW 1x1 combined cycle. In the two plans that do not have combined cycle additions, there are other resources selected to fill the capacity need in 2030.

Application, pp. 3-4. DTE Electric states that its fixed PCA for years 2020-2024 should be approved in its entirety, but the “flexible PCA for years 2025-2035 is by its nature undefined and may be separately approved.” Application, p. 4.

For modeling, the company used ABB Strategist (with Load Forecast Adjustment, Generation and Fuel, and PROVIEW application modules) (Strategist), ABB PROMOD, Epis Aurora, GPCM Natural Gas Forecasting System, and a revenue requirements model developed by DTE Electric

using an Excel worksheet. 3 Tr 392. DTE Electric ran four different modeling scenarios: (1) a reference case based on company assumptions; (2) a business-as-usual (BAU) case; (3) an emerging technologies (ET) scenario; and (4) an environmental policy (EP) case.³ 3 Tr 362-265. To each of these scenarios, the company applied the sensitivity analyses required under the MIRPP, and additional sensitivities requested by stakeholders. The sensitivities included changing load levels, EWR levels and costs, capital costs, renewable energy amounts, gas commodity prices, retirement dates, DR, discount rates, elimination of a gas unit in 2029, and carbon dioxide emission levels. 3 Tr 368-371, 392-404. The analysis of the scenarios and multiple sensitivities resulted in over 138 model runs. 3 Tr 373; Exhibit A-3 Revised, section 6. DTE Electric stated that it considered the following resource alternatives: (1) coal; (2) nuclear; (3) natural gas; (4) energy efficiency; (5) renewable energy; (6) DR, including CVR/VVO; (7) customer-owned distributed generation (DG); (8) storage; (9) market purchases; and (10) transmission alternatives and distribution efficiency. 3 Tr 354-355. It screened out certain options, including combined heat and power (CHP) and specific battery technologies. 3 Tr 395.

Based on the starting point assumptions and planned retirements of Belle River Units 1 and 2 in 2029 and 2030, respectively, the company identified a capacity shortfall of 585 MW beginning in 2030-2031. DTE Electric indicated that, because there is no near-term “persistent capacity need,” the company did not issue a request for proposals (RFP) for additional capacity resources. 3 Tr 354.

The utility seeks approval of both PCAs, but also argued that, because it does not forecast a capacity need until 2030 and because technology is changing so rapidly, long-term planning should be kept flexible. The company indicated it will file a new IRP in 2025.

³ Parameters for the BAU, ET, and EP scenarios are described in the MIRPP, pp. 15-21, 24-25.

While acknowledging the uncertainty of future events, the Staff and MEC/NRDC/SC objected to the company's bifurcated approach to the PCA and to the fact that DTE Electric did not demonstrate which flexible PCA is the most reasonable and prudent plan, as the statute requires.

The ALJ found that the flexible PCA for 2025-2035 does not comply with MCL 460.6t or the IRP Filing Requirements. PFD, pp. 101-102. She concluded that the IRP Filing Requirements and Section 6t(3) contemplate a single "plan to meet those [load] obligations." PFD, p. 101, quoting Section 6t(3). The ALJ found that the clear language of Section 6t(3) requires one plan for the 5-year, 10-year, and 15-year projections. She further noted that Section 6t(8) authorizes the Commission to approve the IRP if it finds that the "proposed integrated resource plan represents the most reasonable and prudent means of meeting the electric utility's energy and capacity needs." The ALJ observed that this refers to a single plan, and she found that DTE Electric submitted five plans. Having found DTE Electric's proposed IRP to be noncompliant with Section 6t, the ALJ recommended that the Commission direct the company to provide, in its next IRP, a single PCA. She further indicated that the PFD would thereafter focus on the "fixed PCA for 2020 through 2025." PFD, p. 102.

In exceptions, DTE Electric argues that the ALJ confused the PCAs with the plan, and contends that it filed a single comprehensive plan, informed by the modeling and planning principles. The company opines that the PCAs are not IRPs but only components of an IRP, and argues that it filed a single plan to meet load obligations 5, 10, and 15 years out. DTE Electric avers that its plan meets the requirements of Section 6t(3) despite not selecting one particular asset or set of assets. DTE Electric states that the company has chosen not to commit to a specific replacement for Belle River capacity at this time because it would not be reasonable and prudent to

do so. DTE Electric argues that such a selection, for something that will occur ten years out, would be premature in light of the pace of technological change at the present time.

In reply, Ann Arbor argues that the statute contemplates a single plan throughout, and gives no indication that the plan may consist of a multitude of choices. Ann Arbor contends that the company's multiple pathways were met with uniform surprise and dismay by the other parties and should be disallowed.

The Attorney General also describes the IRP as too vague and argues that offering such a wide range of possibilities does not comport with the statute, and does not help the process.

Section 6t is titled "Integrated resource plan." Each subsection of Section 6t refers to the "plan." Perhaps most significantly, Section 6t(8)(a) provides that the Commission "shall approve the integrated resource plan . . . [that] represents the most reasonable and prudent means of meeting the electric utility's energy and capacity needs," which is determined after consideration of the factors enumerated in that subsection. The Commission acknowledges that DTE Electric's approach, which involves the exploration of four potential pathways for the planning period that is 5 to 15 years out, has value – indeed, planning is all about analyzing different scenarios, as the MIRPP and the IRP Filing Requirements make clear. However, the Commission finds that it is necessary for the applicant to identify the potential pathway that it proposes is the most reasonable and prudent. The Commission finds that this identification is necessary, as it will provide the Commission with the utility's thinking on the details of its preferred plan and most likely future scenario. The Commission does not object to being given multiple pathways to consider. But without any selection of a single pathway by the utility, the Commission is deprived of the utility's opinion on which scenario is most likely to play out. Each pathway is presumably triggered by specific events. Selection of a single pathway by the utility alerts the Commission to which events

are considered most likely to occur and what the response would be. Finally, the Commission notes that even under the defined PCA, pathways begin to diverge as early as 2024. Given that the proposed course in the current IRP is to narrow the focus to demand-side resources in the immediate future, the Commission recommends that DTE Electric indicate its selection of a single future pathway that it proposes as part of a complete plan, for the entire plan period, as part of its next IRP. In the alternative, should DTE Electric choose instead to withdraw and refile its IRP, or to request an extension of the statutory timeline in order to address the fundamental deficiencies of its plan, the company should include and support its selection of a single future pathway.

B. Request for Proposals/Ownership Issues (MCL 460.6t(6))

DTE Electric argued that it was not required to issue an RFP under Section 6t(6) to provide new supply-side capacity generation because it did not identify a persistent capacity need until 2029-2030, and because the new resources indicated for use in the first three years of the IRP are intended to meet renewable portfolio standard (RPS) requirements and VGP customer requests and are not acquired for serving load. DTE Electric contends that it did not identify a need to serve load during the three-year period designated in Section 6t(6), and thus there was no need for an RFP.

MEIBC/IEI and MEC/NRDC/SC argued that Section 6t(6) requires the issuance of an RFP if the utility is adding any supply-side resources to meet demand during the initial three-year period covered by the IRP.

The ALJ concluded that DTE Electric's failure to issue an RFP as required by Section 6t(6) renders the IRP noncompliant with the statute. The ALJ found:

As shown in Exhibit A-7, it appears that the wind and solar resources included in DTE's starting point are counted toward meeting the company's PRMR [planning reserve margin requirement] in the first three years of the plan, so they fall within the ambit of Section 6t(6), which includes supply-side resources "needed to serve

the utility's reasonably projected . . . applicable planning reserve margin." In addition, the company claims that it currently has no capacity need, and it does not anticipate such a need until Belle River is retired in 2029-2030. Yet, DTE's plan calls for the retirement of all its Tier 2 coal units between 2019 and 2022, and it appears that at least some of the lost capacity will be replaced by the renewables included in the first few years of this IRP.

PFD, p. 104 (note omitted). Having found that the IRP does not comply with the requirements of Section 6t(6), the ALJ recommended that, in its next IRP, DTE Electric issue an RFP if it forecasts adding supply-side options to meet load, PRMR, and the local clearing requirement (LCR) in accordance with Section 6t(6). PFD, p. 105.

The ALJ then addressed DTE Electric's apparent preference for company-owned renewable generation assets. The ALJ noted that the Commission found that this preference was not adequately supported in the July 18, 2019 order in Case No. U-18232, p. 21, partially approving DTE Electric's most recent renewable energy plan (REP) amendment. She further noted that the Commission's February 15, 2017 *Report on the Implementation of the PA 295 Renewable Energy Standard and the Cost-Effectiveness of the Energy Standards*, p. 19, found that the weighted average cost of power purchase agreements (PPAs) was lower than the cost of company-owned projects in the years examined. PFD, pp. 105-106. The ALJ also found that the record did not support DTE Electric's analysis of the difference in the levelized cost of energy (LCOE) between utility-owned assets and PPAs. She was unpersuaded by the company's arguments regarding a financial incentive mechanism and the need for risk adders for PPAs, noting that there is no requirement that PPAs be for 20 years (as opposed to the depreciable life of the project), and that market risk cuts both ways (the cost of renewables may rise or fall). The ALJ also took note of the tax credits that reduce the costs of solar. She observed that the Staff supported no more than 50% utility ownership of new renewable assets, and concluded that "the inquiry must default to a determination of what is most reasonable and prudent for customers, on a case-by-case or project-

by-project basis, properly informed by an RFP.” PFD, p. 108. Finally, the ALJ recommended adoption of the Staff’s proposal to establish a stakeholder process for evaluating best practices for RFPs and competitive procurement.

In exceptions, the Staff argues that DTE Electric has no capacity need at this time and thus an RFP was not required under Section 6t(6). The Staff observes that DTE Electric forecasts no capacity need during the planning period, and that, if a need is later found, the company can be subjected to an interim PURPA review. 7 Tr 3365. The Staff also notes that “DTE recently conducted an RFP that is all source and includes PPAs.” Staff’s exceptions, p. 13.

In exceptions, DTE Electric argues that there was no need to issue an RFP because the company has no plans to build or acquire a new supply-side resource to meet projected load, PRMR, or LCR during the first three years of the IRP. The company states,

while DTE Electric will be bringing a few new resources online in the first three years of the IRP, these new resources are not needed from a capacity standpoint, i.e., to meet projected load, PRMR or LCR (Exhibit A-6, A-7, A-18 and A-67). Rather, they are either needed to meet the 15% renewable portfolio standard (RPS) requirement (MCL 460.1028) or are renewable generation assets to be built pursuant to voluntary green pricing (VGP) programs required by Public Act 342 of 2016 (MCL 460.1061).

DTE Electric’s exceptions, p. 6. Thus, the company takes the view that, legally, resources planned for meeting RPS and VGP requirements do not count as new supply-side resources, and their associated capacity does not represent a capacity need. DTE Electric explains that the Commission recently confirmed, in the company’s PURPA review case, that RPS assets are built for non-capacity reasons and do not evidence a utility capacity need. September 26, 2019 order in Case No. U-18091 (September 26 order), pp. 46-47. DTE Electric argues that VGP is also the product of a statutory mandate and VGP resources are not built to meet projected load, PRMR, or LCR, and thus should not trigger the need for an RFP.

The company complains that it is not clear what the ALJ relied upon in finding that some of the lost capacity from the Tier 2 plants is being replaced by renewables, but notes that the Blue Water Energy Center (BWEC) will be replacing that capacity, along with demand side resources.

DTE Electric further argues that the September 26 order, pp. 47 and 57, found that DTE Electric does not have a capacity need within the 5-year planning horizon. Thus, the company asserts, when it was making its decision regarding an RFP in the summer of 2018, there was no capacity need for the first three years of the IRP. The company further points out that it did not know that Greater Detroit Resource Recovery Facility (GDRRF) would close until two days before filing its application in this case, and so that event was unknown at the time when the RFP decision needed to be made. In sum, DTE Electric submits that at the time the RFP decision was made, it was not planning to add any capacity resources to meet projected load, PRMR, and/or LCR during the first three years of the IRP.

In reply, ELPC *et al.* contend that their exceptions, applying MEC/NRDC/SC's analysis to Exhibit A-7, demonstrate a capacity need in the next five years (in capacity need discussion, below). ELPC *et al.* posit that VGP resources are built to fill a capacity need because they are necessary to meet customer demand, and because VGP customers receive credits for capacity value through their participation. ELPC *et al.* note that in the September 26 order the Commission clearly stated that capacity would be reviewed again in this proceeding, and they argue that the instant record is more robust than the one offered in that prior case. Finally, ELPC *et al.* assert that the plain language of Section 6t(6) required an RFP, and note that the company does not dispute that it will be procuring new supply side resources during the first three years of the planning period.

Geronimo, too, points out that DTE Electric clearly states that it will be bringing new resources online during the first three years of the IRP. Geronimo argues that the Staff provides no legal analysis or discussion of the evidence to support its claim of no capacity need. Geronimo notes that nothing in Section 6t(6) indicates that “load” as used in that section is synonymous with a capacity need under a resource adequacy construct, and argues that customers who seek renewable energy certainly represent load. Geronimo asserts that DTE Electric reads too much into the September 26 order. Geronimo argues that the Commission did not say that assets built to meet RPS requirements cannot be considered as evidence of a capacity need, but simply noted that one way of meeting RPS requirements – the purchase of renewable energy credits (RECs) – would not address capacity at all. Geronimo points out that any resource built to comply with the RPS provides capacity, and that the company uses alleged non-capacity units to plug capacity shortfalls resulting from retirements in the IRP.

In their replies, Energy Michigan, MEIBC/IEI, and Ann Arbor make the same arguments as Geronimo, stating that DTE Electric never supports the notion that RPS and VGP resources do not count towards capacity, and arguing that the Commission may consider a utility’s choice to build generation as evidence of a response to a capacity need. MEIBC/IEI notes that nowhere in Section 6t(6) did the Legislature tie the use of a capacity resource to a “capacity need” as that term is used in PURPA, and that wind and solar resources are clearly used by the company to count towards meeting PRMR in the first three years of the IRP. MEIBC/IEI point out that the statute clearly states that the resulting proposals from the RFP “shall” be used to inform the IRP. MEIBC/IEI contend that the lack of an RFP also thwarted reasonable supply-side generation options such as CHP.

MEIBC/IEI further note that DTE Electric is seeking approval of about 1,240 MW of near-term projects that are company-owned, and, without an RFP, it is not possible to know whether these company-owned resources are the most reasonable and prudent option. MEIBC/IEI also ask that the Staff's exception and reference to a recent RFP be rejected, because a recent RFP does nothing to solve the problem of no pre-IRP RFP and the lack of a record in this case. MEIBC/IEI urge the Commission to reject DTE Electric's exceptions on both the RFP issue and the ownership analysis.

In its reply, GLREA points to the extensive new supply side resources built into the IRP, and notes that every new generating resource provides energy and capacity. GLREA further argues that the RPS and VGP requirements are based on different laws written to accomplish different purposes, and that renewable power also meets capacity needs. GLREA argues for holistic planning.

The Attorney General also argues that DTE Electric's reading of Section 6t(6) is untenable, and the company failed to issue an RFP because it prefers to own the assets. The Attorney General observes that DTE Electric showed no interest in adhering to the spirit of Section 6t and attempted to provide the Commission with the bare minimum to satisfy this section of the statute.

In their reply, MEC/NRDC/SC also note the addition of 1,240 MW of new resources in the next three years, and the fact that they are planned to meet RPS and VGP requirements and to replace Tier 2 capacity that is retiring in the early 2020s and will not be fully offset by BWEC. MEC/NRDC/SC assert that the record shows that these resources are being used to meet capacity needs and to fulfill the PRMR within the three year period. Exhibit A-7. MEC/NRDC/SC point out that because all of these resources are located in Michigan, they will also contribute to meeting LCR, and of course will provide energy and capacity to meet load. MEC/NRDC/SC note that the

renewable additions are significantly larger than the unforced capacity surplus. MEC/NRDC/SC further argue that the issue of whether a utility has a PURPA capacity need is a narrow one and relates to avoided cost, whereas the Section 6t(6) RFP requirement applies to “any new supply-side generation capacity resources” needed to meet load, PRMR, and LCR. MEC/NRDC/SC argue that the RFP is not just helpful, but is required under the statute, and would provide better information than the generic assumptions used in the modeling.

The Commission finds that DTE Electric’s plans to add supply-side generation capacity resources within the first three years of the planning period triggers the RFP requirement of Section 6t(6). DTE Electric fundamentally misreads the narrow exemption to whether planned additions of renewable generation to meet the company’s RPS compliance requirements constituted a capacity need under PURPA, and whether this narrow exemption also applies to the new supply-side generation capacity resources needed to meet load, PRMR, and LCR under Section 6t(6). In the September 26 order, the Commission noted that because a utility can meet the RPS by either generating electricity from renewable energy systems or purchasing or acquiring renewable energy credits (RECs) with or without the associated renewable energy, “the RPS compliance requirement is not designed to fill a capacity need because an electric provider is not limited to generating the renewable energy needed.” September 26 order, pp. 46-47. However, the Commission also noted that it “is considering the remaining portion of DTE Electric’s REP in its IRP proceeding,” and so could not, at that time, “make a determination that its REP constitutes a capacity need.” *Id.*

In the present case, however, DTE Electric is proposing not to purchase RECs to comply with the RPS requirements, but to build generation that would meet actual customer load, while also complying with the RPS, as well as meeting voluntary customer demands to obtain more of their

electricity needs from renewable resources under the VGP program.⁴ The Commission notes, as MEC/NRDC/SC point out, that all of these resources are to be located in Michigan, and will aid in meeting not just the utility's projected electric load, but also the PRMR and LCR. Further, DTE Electric's approved Standard Contract Rider No. 17 Voluntary Renewable Energy Tariff states:

All customers taking service under this rider will also receive a Subscription Credit on a per kWh basis for the energy the customer agrees to purchase pursuant to this Rider. The Subscription Credit shall be equal to the Company's Fuel and Purchase Power (FPP) expense per kWh (including PSCR [power supply cost recovery]) collectively known as Unit Cost of Power Supply (UCPS), minus the cost of transmission included in the FPP factor, *plus a credit for capacity. The credit for capacity shall be equal to the product of the Zonal Resource Credits for the renewable resources used for this program, as determined by [MISO], and 75% of the applicable MISO published Cost of New Entry for the Company's resource zone.* The Subscription Credit components shall be updated annually.

DTE Electric Rider No. 17, Revised Sheet No. D.-111.00 (emphasis added). While the impetus for these REP and VGP renewable resources is not a capacity need, they are used to meet the PRMR and LCR (and serve load). Therefore, the Commission finds that the renewable resources included in the plan for the three-year planning period do trigger the Section 6t(6) provision requiring an RFP.

The Commission further reminds DTE Electric that resource acquisition decisions require a showing of reasonableness and prudence and the results of competitive bidding provide necessary information for the Commission to rely on in making that determination. Thus, even without the required application of Section 6t(6), DTE Electric needs to utilize competitive bidding in order to show that it has acquired the resource at a reasonable and prudent price and has considered

⁴ Indeed, if customers merely wanted RECs to meet their corporate sustainability and renewable energy commitments, there are many options available for them to do so. Instead, they are choosing to participate in DTE Electric's VGP program that allows them to meet their load through specifically identified renewable generation resources.

alternatives. Aside from Section 6t(6), the Commission necessarily expects a full evaluation of all alternatives including competitive procurement for all resource types.

Because the resource additions trigger the requirement to issue an RFP under Section 6t(6), the Commission cannot approve an IRP under Section 6t(6) without DTE Electric first issuing an RFP for all supply-side generation capacity resources planned for the first three years of the planning period. This RFP will need to be filed in this docket, and the Commission is open to a motion to extend the statutory timelines under Section 6t(6) and 6t(7) to allow for consideration of this new evidence added to the record. Section 6t(6), in pertinent part, provides as follows:

An electric utility shall define qualifying performance standards, contract terms, technical competence, capability, reliability, creditworthiness, past performance, and other criteria that responses and respondents to the request for proposals must meet in order to be considered by the utility in its integrated resource plan to be filed under this section. Respondents to a request for proposals may request that certain proprietary information be exempt from public disclosure as allowed by the commission. A utility that issues a request for proposals under this subsection shall use the resulting proposals to inform its integrated resource plan filed under this section and include all of the submitted proposals as attachments to its integrated resource plan filing regardless of whether the proposals met the qualifying performance standards, contract terms, technical competence, capability, reliability, creditworthiness, past performance, or other criteria specified for the utility's request for proposals under this section.

Thus, while the RFP must inform the IRP, the Commission recognizes that Section 6t(6) does not require the Commission to opine on the results of the RFP. Additionally, the Commission does not intend to approve any near-term supply-side resources in this case based on the required RFP. Therefore, a full review of the merits of the results may not be worthy of the parties' time and attention. That said, the Commission also recognizes that Section 6t requires that review of an IRP occur in a contested proceeding and the Commission may only make decisions based on a complete record, which may necessitate requesting an extension by DTE Electric.

Whatever course DTE Electric decides to pursue, the scope and adequacy of competitive bidding to inform the strategy underlying an amended REP will be considered under an accelerated schedule.

C. Modeling Issues (MCL 460.6t(5)(i) and (5)(k))

1. Starting Point Resources

DTE Electric started with inclusion of the following resources in its initial scenarios:

- 1.5% EWR savings target.
- 732 MW in 2019 increasing up to 863 MW total DR in 2024 and beyond.
- 855 MW incremental wind and 538 MW incremental solar between 2019-2030.
- 300 MW incremental wind and 2,000 MW incremental solar between 2031-2040.
- 300 MW VGP wind in 2021.
- 1,150 MW BWEC CCGT [combined cycle gas turbine] addition in 2022.
- 34 MW Dearborn CHP addition in 2020.
- Retirement dates:
 - River Rouge in 2020
 - St. Clair 1-3, 6 in 2022
 - St. Clair 7, Trenton 9 in 2023
 - Belle River 1 in 2029
 - Belle River 2 in 2030
 - Monroe before 2040.

3 Tr 405. DTE Electric contended that it was required to include the renewables necessary for RPS compliance; and that, whether the starting point resources were optimized or not, there was no persistent capacity need until 2029.

The Staff objected to the inclusion of resources that were unapproved and were selected only to satisfy the company's clean energy and carbon reduction goals (unrelated to any statutory or regulatory requirements). The Staff noted that, by including new resources that are neither approved nor necessary to comply with the 15% RPS requirement, the modeling is of less value because there has been no opportunity for the model to fill energy and capacity needs through the optimization of resources. In Exhibit S-6.1, the Staff shows that, while the full IRP (through 2040) adds over 7,000 MW of resources, only about 700 MW of that 7,000 MW was optimized by the model. 7 Tr 3298-3301. The Staff noted that models with greater optimization produced later by the company resulted in a huge range in the net present value of the revenue requirement (NPVRR). 7 Tr 3300; Exhibit S-6.2. As the Staff testified, "By pre-disposing the resources needed to meet its clean energy and carbon goals, the Company did not allow for the mix of renewable resources to be optimized for cost," thus hampering the value of the modeling for resource selection purposes and for evaluating the cost impact on ratepayers. 7 Tr 3301.

MEC/NRDC/SC, ELPC *et al.*, and ABATE agreed with the Staff and argued that DTE Electric should be required to support its PCA proposals based on optimized modeled results rather than with unapproved, pre-selected ownership and contractual arrangements modeled at zero cost. 7 Tr 1960, 3041-3042; Exhibit AB-1.

The ALJ found that the utility's inclusion of unapproved resources in its IRP modeling starting point did not comply with Section 6t(5)(k), which requires the IRP to contain an analysis of the "viability of all reasonable options available to meet projected energy and capacity needs." The ALJ determined that DTE Electric's optimization of only about 10% of its total resource additions did not comply with this statutory requirement. PFD, p. 114. The ALJ took note of ABATE's testimony pointing out that the unapproved resources do not actually exist, and that the

error is compounded by the fact that the model assumes their inclusion at zero cost. The ALJ found that the optimized modeling provided later by the company at the request of the Staff was inconclusive as to whether the cost results were the same as in the models where the resources were forced. Having found the IRP to be noncompliant with Section 6t, the ALJ recommended that DTE Electric's next IRP include only approved resources, resources required to meet a statutory mandate (preferably optimized), and unit retirements as evaluated in a retirement analysis. PFD, p. 115.

In exceptions, the Staff states that it does not take issue with the starting point resources used in the IRP provided that DTE Electric completes a more thorough analysis of the resources in the next IRP, prior to their procurement. 7 Tr 3301-3302. The Staff contends that the ALJ misunderstood Staff witness Roger Doherty's testimony. The Staff avers that the testimony was intended to convey that the additional modeling that the Staff requested turned out to be inconclusive as to whether there was a benefit or a detriment to the company associated with the forced inclusion of resources. 7 Tr 3300; Exhibit S-6.2. The Staff states,

Thus, it is inconclusive if the starting point resources make any significant difference at all in cost either direction or the amount of the difference. (7 TR 3300.) Staff witness Doherty states that the starting point resources, not needed from a capacity standpoint, depending on the scenario range "from a savings of \$44 million to a cost of \$105 million." (*Id.*) The least cost plans in each scenario, irrespective of the starting point renewables inclusion or exclusion, remain relatively unchanged.

Staff's exceptions, p. 9. The Staff states, "After the filing of this application, DTE recently conducted an RFP that is all source and includes PPAs. Thus, it appears DTE is taking to heart some of the recommendations in this case made by Staff and other parties." Staff's exceptions, pp. 13-14.

In exceptions, DTE Electric argues that there was no error in including planned renewable assets that are neither approved nor required by law (referring to corporate clean energy and carbon reduction commitments). The company points out that the Staff agreed that it was appropriate to include the renewables included in its renewable energy plan (REP) application, and that the REP also included assets required for the VGP program. 7 Tr 3299. DTE Electric points to its additional modeling, done at the behest of the Staff, which removed the forced-in renewable resources and allowed for optimization, and which demonstrated that the removal of the unapproved renewables did not materially alter the PCAs. Exhibit S-6.2. The company describes the same alleged misunderstanding by the ALJ that the Staff describes. The company further posits that it provided another analysis that also fulfills this requirement at Exhibit A-3 Revised, pp. 113-123, which the ALJ ignored.

Finally, DTE Electric commits to not including unapproved renewables being used to meet its corporate clean energy and carbon goals in the starting point in its next IRP. However, the company wishes the Commission to clarify that REP and VGP resources should be included and should not be optimized; and that optimization should be applied to fill any need resulting from retiring capacity.

In reply, Geronimo argues that the inclusion of the unapproved resources did not comply with the Section 6t(5)(k) requirement for an analysis of the cost, capacity factor, and viability of all reasonable options available to meet projected energy and capacity needs. Geronimo asserts that its Greenwood Solar facility should have been analyzed along with the company facilities included in the starting point. Geronimo contends that DTE Electric has failed to consider third party options in the instant case, just as the Commission found in the July 18, 2019 order in Case No. U-18232, pp. 22-24. Geronimo states that it does not know what to make of the Staff's remark in its

exceptions that DTE Electric has recently issued an RFP, but urges the Commission not to take a lenient view on that basis. Ann Arbor makes the same arguments in its replies.

In its reply, GLREA contends that if the model is not allowed to optimize assets, there is little point in having an IRP process. GLREA argues that the VGP simply adds one more constraint to the IRP process, similar to environmental laws.

The Attorney General argues that unapproved resources do not belong in the starting point, and that the company's exceptions provided no new information.

MEC/NRDC/SC also argue that, under Section 6t(5)(k), "all reasonable options" should have been analyzed. MEC/NRDC/SC contend that at heart DTE Electric argues that its IRP is legally sufficient because it provided the supplemental modeling for the Staff; but that supplemental modeling resulted in a significant cost delta, and did not fix the fundamental problem of not allowing optimization across all scenarios and sensitivities.

Section 6t(5)(k) requires that the plan provide an "analysis of the cost, capacity factor, and viability of all reasonable options available to meet projected energy and capacity needs." DTE Electric's IRP does not provide this analysis. Of 1,693 MW of wind and solar in the starting point, 1,237.55 MW are unapproved. 7 Tr 3042. The Commission finds that, in any integrated resource plan, unapproved resources shall not be introduced into the starting point for the modeling, because this does not comply with the statute. The Commission recommends that DTE Electric revise the IRP to strip all unapproved supply-side resources from the starting point, whatever the type, and whatever the statutory purpose (or non-statutory purpose) the resource is intended to fulfill. Basic principles of modeling-based analysis seek to allow the model to perform a specific function; that is, to optimize several potentialities and select particular ones on the basis of their ability to fulfill the goal of the model. Pre-determining the model's outcome fails to provide

useful information for anyone, and fails to comply with the statutory requirement to analyze all reasonable options. Based upon the foregoing, the Commission recommends that DTE Electric revise the IRP to remove all unapproved supply-side resources to meet RPS, VGP, and corporate goals from its defined PCA. The record in this case is insufficient for the Commission to approve any supply-side resources contained within DTE Electric's IRP, or indeed, to approve a plan to procure such supply-side resources.

Due to the shortcomings in the record, the Commission recognizes that, with this decision, many of the approvals that DTE Electric thought would be forthcoming via an IRP order will not occur and will need to be considered in other proceedings, particularly the company's REP proceeding. Thus, the Commission directs DTE Electric to file an application to amend its REP in Case No. U-18232 no later than April 1, 2020. Because the record in the instant case does not allow the Commission to make decisions approving any new supply-side resources, the Commission finds that the amendment of DTE Electric's REP must be accelerated – particularly since the company may soon find that it needs to seek the approval of wind or solar contracts, which cannot be approved in the absence of an approved REP. The Legislature, with the passage of 2016 PA 341 and 342, left in place the separate statutory mechanisms that deal with capacity demonstration, REPs and portfolio standards, PURPA, CONs, and IRPs; and the Commission can only deal, in each setting, with the record that it has before it. The instant record only allows the Commission to address the demand-side resources contained in the proposed IRP, but timely amendment of the REP will allow the company to move forward with competitive bidding, and contract procurement and approvals.

2. Retirement Analysis

DTE Electric proposed to accelerate the planned retirements of Trenton Channel and St. Clair 1 by one year, to 2022. No party objected and the ALJ recommended adoption of this proposal. The ALJ also agreed with DTE Electric and the Staff that the company was not required to evaluate the retirement of the Monroe units for this IRP. PFD, pp. 117-118. No exceptions were filed, and the Commission adopts the findings and recommendations of the ALJ.

Other aspects of the retirement analysis were disputed.

a. Belle River

DTE Electric proposes that Belle River retire in 2029/2030. At the request of SC, the utility analyzed a 2025/2026 retirement and found that the original retirement date of 2029/2030 provided the least cost plan. 3 Tr 417-418. MEC/NRDC/SC and ELPC *et al.* contended that the new analysis was incomplete and inaccurate, and that alternative modeling should show a lower NPVRR associated with the earlier retirement date.

The ALJ found DTE Electric's retirement analysis for Belle River to be inadequate and noncompliant with Section 6t(5)(k). PFD, p. 117. She found that the company should have examined additional retirement dates between 2025-2030, and should have included avoided environmental costs in its analysis of the earlier years. The ALJ recommended that DTE Electric undertake a more complete analysis of the Belle River retirement in its next IRP.

In exceptions, echoing what it argued above, the Staff contends that DTE Electric is correct that the least cost plan to replace Belle River is the same whether the company actually implements all of the forced-in starting resources or does not. The Staff contends that this was verified through the requested additional modeling, because the model selects the same resources in the least cost plan with or without the forced-in resources. The Staff further argues that, since

2025 is not within the near-term portion of the IRP, it should be studied in future IRPs. The Staff maintains that DTE Electric complied with the IRP Filing Requirements in the retirement analysis, and the Belle River retirement analysis should not be used as a basis to reject the IRP.

In its exceptions, DTE Electric argues that its Belle River analysis was sufficient because it included the analysis ordered by the Commission and the additional one requested by SC, and there is no requirement that the company look at more dates. The company reports that the optimized modeling selected the 2029/2030 time frame in both scenarios. 3 Tr 560-562. The company notes that the November 21, 2017 order in Case No. U-18418, p. 38, found that the utility should have the flexibility to allow the model to select retirement dates. DTE Electric also claims that the CON order, pp. 79-80, 126, was based on the assumption that Belle River would be operating to 2029/2030, and provided a very recent analysis of the retirement date. DTE Electric explains that environmental compliance costs that will be incurred by 2023 were not included in the retirement delta analysis because all of the dates considered for retirement were after 2023. 4 Tr 920.

DTE Electric also objects to arguments that it should have allowed the model to select superfluous units, because a merchant plant that is not needed for capacity would never be built by the company. Finally, DTE Electric contends that it is not possible to model every potential retirement date.

In reply, MEC/NRDC/SC call the modeling, including the additional 2025/2026 scenario, fundamentally flawed because it did not rely on updated information and did not include capital savings that would result from an earlier retirement. MEC/NRDC/SC state that they showed that the earlier date has a lower NPVRR than the proposed date, and urge the Commission to require the utility to submit a new retirement analysis in an IRP or other contested case by 2022 that

corrects these obvious errors and objectively analyzes years other than 2029/2030.

MEC/NRDC/SC note that the MIRPP, p. 18, requires a “meaningful analysis of whether coal units should retire ahead of business as usual dates” and argue that a single alternative date does not meet that standard. MEC/NRDC/SC observe that the inputs into Strategist meant that superfluous units could not be selected, and renewables that benefit from the current federal tax credits were left out. Likewise, the model was prevented from economically ramping up wind and solar in advance of a capacity shortfall. MEC/NRDC/SC argue that if the company can economically pursue wind and solar resources in the years leading up to the retirement of these units, it should do so.

The Commission agrees with the intervenors and the ALJ that the retirement analysis for Belle River provided with the company’s filing is inadequate and fails to demonstrate that the 2029/2030 retirement scenario is reasonable and prudent. As such, the Commission directs DTE Electric to provide additional retirement information pursuant to Section 6t(5)(k) and (m) as part of its next IRP filing. This information would take into account any changes in environmental laws or formally proposed changes to environmental laws which have occurred in the interim, particularly with respect to effluent limitations guidelines and environmental retrofits. This information shall also include NPVRR analyses, with and without the environmental capital expense and operations and maintenance (O&M) costs discussed in this proceeding and in several rate cases, in order to provide the Commission with additional information on the reasonableness and prudence of planned investments, in several different proposed retirement years including 2024/2025. In the meantime, the Commission will continue to carefully scrutinize near-term capital expense and O&M costs as part of the economic analysis necessary to making these investment and cost recovery decisions in rate cases. The Commission stresses the urgency of this issue given the

timeline for environmental expenditures. Exhibit A-13; 5 Tr 1123, 1159-1161. As the Commission has not found the proposed 2029/2030 retirement date to be reasonable and prudent, there is explicitly no presumption of reasonableness and prudence involving additional expenditures needed to keep the plant running.

b. River Rouge Unit 3

DTE Electric proposed to convert River Rouge Unit 3 (RR3) from coal to recycled industrial gases. GLREA and MEC/NRDC/SC objected to the proposal. These intervenors argued that this proceeding does not provide an adequate cost analysis. The Staff pointed out that the company's new fuel contract will be with a company affiliate (E.E.S. Coke) and will require further scrutiny under the Code of Conduct, Mich Admin Code, R 792.10101 *et seq.*

The ALJ found that the proposal was not adequately supported on the record and recommended that it be reviewed by the Commission in a proceeding where cost recovery for the proposal is in issue. PFD, p. 120.

In exceptions, the Staff contends that the RR3 conversion plan should be addressed in this proceeding because it is a decision addressing a resource commitment (though the affiliate transaction issues should be addressed in another proceeding). The Staff recommends that the Commission decide whether the conversion is appropriate. The Staff opines that the conversion will support the company's capacity position until the BWEC comes online, and RR3 will be used to support reliability. 5 Tr 1118-1120. The Staff notes that all costs will be subject to review in other proceedings. 5 Tr 1197.

In reply, GLREA contends that the record is insufficient to establish the availability and costs of the industrial gases that DTE Electric claims it will be using. GLREA argues that the proposal should be compared to alternative PURPA or other PPA resources before it is approved.

In their reply, MEC/NRDC/SC note that the company claimed a small economic benefit, through the NPVRR analysis, to extending the life of RR3, but MEC/NRDC/SC question the analysis. They observe that DTE Electric plans to purchase the industrial waste gases from its affiliate at an assumed price of 30% of the price of natural gas, which has not yet been negotiated with the affiliate. MEC/NRDC/SC disagree with the Staff on grounds that the record lacks credible information that shows that either the costs or the discounted price are reliable. 5 Tr 1188. Additionally, MEC/NRDC/SC note that in December of 2019, after the close of the record in this case, U.S. Steel announced that it is idling its operations, and these intervenors allege that U.S Steel is the source of two of the types of gas that the company intends to use as fuel for RR3. MEC/NRDC/SC also question whether RR3 would run only to support capacity shortfalls. MEC/NRDC/SC assert that the Midcontinent Independent System Operator, Inc. (MISO) Attachment Y study from 2018 is outdated, and question whether RR3 is needed to ensure grid reliability. 5 Tr 1118-1119. MEC/NRDC/SC allege that “there is little reason to believe that a derated River Rouge 3 with a questionable fuel supply and a questionable cost is a reasonable or prudent option.” MEC/NRDC/SC’s replies to exceptions, p. 22.

The Commission agrees with the ALJ. The record in this matter is not robust enough to allow the Commission to appropriately analyze the conversion proposal. A final decision in DTE Electric’s pending rate case, Case No. U-20561, will be issued in less than 90 days. The Commission anticipates that the pending rate case or a future one, where cost recovery is actually in issue, will provide a better record for determining whether the conversion and its associated costs are reasonable and prudent.

c. Fossil Peaking Units

DTE Electric's modeling assumed that many of its peaker units would continue to operate throughout the life of the IRP. The Staff, the Attorney General, and ELPC *et al.* noted that many of these units are already past their useful lives, and their continued use will result in increased capital and O&M costs which were not factored into this IRP. These parties contended that many of these older units will become more expensive to run, and will need to be retired or replaced before 2040. 7 Tr 2376-2377.

The ALJ found that there was no dispute that DTE Electric failed to include an assessment of its peaking units in the IRP, and that Section 6t(5)(k) requires this analysis. PFD, p. 121. She found that the company thereby failed to account for increased capital and O&M costs that would clearly be associated with these older units. The ALJ recommended that DTE Electric provide an evaluation of these units in its next IRP, and an analysis of a solar plus storage alternative for replacing the oldest and least reliable units. *Id.*

In exceptions, DTE Electric acknowledges that it did not include a retirement assessment of its peaking units, but contends that it followed the dictates of the MIRPP, p. 18, which it interpreted to mean that it did not need to include an analysis of its gas-fired peaker fleet. The company commits to providing the missing analysis in its next IRP.

In reply, ELPC *et al.* argue that the IRP should be rejected due to the lack of the peaker analysis, and a new IRP should be filed in 30 months, or less.

While the Commission agrees with the ALJ that the missing peaker analysis should be a required element in future plans, the Commission finds that this issue is best addressed in the next round of updates to the MIRPP, which will commence in July of 2022. The language that currently appears in the MIRPP, p. 18, which addresses oil plants, may be ripe for revision at that

time. In the meantime, the Commission will carefully scrutinize whether any capital or O&M costs proposed by DTE Electric related to the continued operation of these peaking units should be recovered from ratepayers as reasonable and prudent.

d. Public Health Impacts

MEC/NRDC/SC provided evidence on both the public health impacts associated with air pollution emissions from fossil-fired generation and the related costs. These intervenors argued that DTE Electric should be required to include public health impacts and costs as part of its IRP. MEC/NRDC/SC contended that the Commission has an obligation to consider public health effects under the Michigan Environmental Protection Act (MEPA), MCL 324.1701 *et seq.*, in evaluating the IRP.

Without ruling on the applicability of MEPA, the ALJ recommended that “public health impacts, to the extent these impacts can be identified, assigned, and the associated costs quantified, should be recognized as part of the retirement analysis in future IRPs.” PFD, p. 123. The ALJ noted that the Commission requires an assessment of anticipated health impacts in a CON proceeding under MCL 460.6s, and opined that similar requirements should be added to the retirement analysis that informs a PCA. *See*, May 11, 2017 order in Case No. U-15896, p. 6, and Attachment A, Part VII.A.6.

In exceptions, Soulardarity contends that a public health analysis should be included in any future IRP, and that the record herein provides sufficient evidence to quantify DTE Electric’s emissions associated with the IRP and the costs resulting therefrom.

In its exceptions, DTE Electric argues that the MIRPP already requires an environmental scenario, and that, in the order adopting the MIRPP, the Commission acknowledged that identifying and accounting for pollution costs is challenging. November 21, 2017 order in Case

No. U-18418, p. 48. The company indicates that there is currently no widely agreed upon method for doing so, and urges the Commission not to change the filing parameters.

In reply, GLREA points to its testimony citing a reliable study showing health impact costs for the Great Lakes region. 7 Tr 3134. GLREA urges the Commission to require all future IRPs to include the costs of health impacts in the retirement analysis.

The Attorney General also argues that public health impacts should be part of the retirement analysis in future IRPs, and the fact that the quantification of those impacts may be difficult should not prevent the Commission from adopting such a requirement. The Attorney General maintains that the Commission has already done so for CON filings.

MEC/NRDC/SC assert that they developed a comprehensive and uncontested record in this matter showing that fossil fuel generation has direct adverse impacts on the health of local and downwind residents, and, further, that it identified acceptable modeling tools, such as the U.S. Environmental Protection Agency (EPA)-approved Environmental Benefits Mapping and Analysis Program (BenMAP), for assessing and monetizing the health impacts of resource decisions. 7 Tr 2908. MEC/NRDC/SC urge the Commission to require that future IRPs contain an analysis of the cost of the health impacts associated with resource planning decisions, and to set the appropriate parameters, such as scope and time frame, for the analysis. MEC/NRDC/SC argue that MEPA applies to the IRP process and authorizes the Commission to require the consideration of health impacts associated with IRPs. MEC/NRDC/SC's replies to exceptions, p. 25.

Section 1705(1) of MEPA, MCL 324.1705(1), provides that any person may intervene in an administrative proceeding by filing a pleading asserting that the proceeding "has, or is likely to have, the effect of polluting, impairing, or destroying the air, water, or other natural resources." In a proceeding where an intervenor has made this allegation, such as this IRP proceeding, "the

alleged pollution, impairment, or destruction of the air, water, or other natural resources . . . shall be determined, and conduct shall not be authorized or approved that has or is likely to have such an effect if there is a feasible and prudent alternative consistent with the reasonable requirements of the public health, safety, and welfare.” MCL 324.1705(2). The Commission finds that MEPA does apply to this proceeding, because the allegation of impairment has been made by intervenors. The Commission concludes that it is appropriate to determine under MEPA: (1) whether the IRP would impair the environment; (2) whether there was a feasible and prudent alternative to the impairment; and, (3) whether the impairment is consistent with the promotion of the public health, safety, and welfare in light of the state’s paramount concern for the protection of its natural resources from pollution, impairment or destruction. This is consistent with the Commission’s adoption in the MIRPP, p. 12, of MEPA as one of the state environmental laws that may apply to an IRP proceeding.⁵

Unlike some of the statutory schemes under which the Commission operates (1929 PA 9 being one example), Section 6t contains significant environmental mandates which apply to IRP applicants. These include Section 6t(1)(c), (d), (f)(ii), and (g); Section 6t(3); Section 6t(5)(m); Section 6t(7); Section 6t(8)(a)(ii); and Section 6t(21). These requirements: (1) result in a record that demonstrates how the utility proposes to comply with all applicable state and federal environmental regulations, laws, and rules during the term of the IRP and the costs of that compliance; (2) provide for the Commission to take official notice of an Advisory Opinion issued by EGLE that directly addresses “whether any potential decrease in emissions of sulfur dioxide, oxides of nitrogen, mercury, and particulate matter would reasonably be expected to result if the [IRP] was approved and whether the [IRP] can reasonably be expected to achieve compliance with

⁵ The Commission also applied MEPA in the CON case. CON order, pp. 124-125.

the regulations, laws, or rules identified” by the Commission under Section 6t(1); and (3) provide that EGLE may request that the Commission order a plan review at any time to address material changes in environmental regulations and requirements that occur after approval of an IRP.

Pursuant to the requirements of Section 6t(1)(c)-(g), the Commission identified all significant and formally proposed (as of that time) state and federal environmental regulations, laws, and rules that must be addressed by the applicant in the IRP filing. The MIRPP identifies 18 significant state/federal environmental issues that must be addressed in the IRP; lists 12 environmental policy assumptions that must applied to modeling by utilities located in Zone 7; requires four environmental policy sensitivities; and contains an environmental regulatory timeline for consideration by the applicant in making compliance strategy determinations. MIRPP, pp. 7-13, 20-21, and Appendix E. The IRP Filing Requirements, pp. 22-23, specify the minimum level of detail that is required to support the IRP, including total projected emissions stated in tons of SO₂, NO_x, carbon dioxide (CO₂), and PM, and pounds of mercury.

DTE Electric provided the required information in its supporting testimony and exhibits, and, based on that record, EGLE issued an Advisory Opinion containing analyses from its Air Quality Division (AQD), Materials Management Division (MMD), Water Resources Division (WRD), and Remediation and Redevelopment Division (RRD). AQD concludes that “an assumption can be made that DTE will likely see a decrease in some criteria pollutants and CO₂ emissions across their generation fleet should the IRP be executed as currently planned; however, a determination on any emissions decrease cannot be made without actual emissions data.” Advisory Opinion, p. 5.⁶ AQD notes that an exception to this opinion could arise if the RR3 conversion is approved

⁶ “Criteria pollutants” are air pollutants for which the EPA has set national ambient air quality standards under the Clean Air Act, 42 USC 7401 *et seq.* They include ozone, PM, NO_x, and SO₂.

because, “[d]epending on the combination of RIGs [recycled industrial gases] burned in the unit after May 2020, there could be an increase in actual SO₂ and CO₂ emissions.” *Id.*⁷

MMD notes that while DTE Electric correctly referenced federal jurisdiction under 40 CFR Parts 257 and 261, it should also have made reference to state jurisdiction under Part 115 of 1994 PA 451 over coal combustion residuals (CCRs). MMD also observes that, with regard to their eventual retirement, DTE Electric will need to include environmental capital costs for two landfills that receive waste from Belle River, St. Clair, Monroe, Trenton Channel, and RR3.

WRD concludes that “the IRP as proposed can reasonably be expected to achieve compliance with the regulations, laws, or rules identified in the [MIRPP].” Advisory Opinion, p. 7. (Laws identified in the MIRPP include the federal Clean Water Act.)

RRD concludes that, since its programs are not referenced in the MIRPP, RRD need not address the IRP; however, RRD notes that DTE Electric indicates in Exhibit A-3, p. 166, that the “closure of ash basins, long-term groundwater monitoring, potential mitigation, inspections, and reporting obligations will continue for many years.”

The Commission takes official notice of the Advisory Opinion under Section 6t(7), and concludes, based on that opinion and the totality of the environmental information submitted on this record that, if revised according to the recommendations contained in this order, the IRP does not result in pollution, impairment, or destruction of the air, water, or other natural resources given the net reduction in pollutants associated with increased investments in EWR, avoided electric capacity additions through CVR and DR, and retirement of coal-fired plants. This is supported by the Advisory Opinion, which does not conclude that there will be any impairment resulting from implementation of the IRP, as filed (without the revisions addressed in this order). The

⁷ The RR3 conversion is not approved in this proceeding.

Commission also finds that the statute, MIRPP, IRP Filing Requirements, and evidence in this proceeding together result in a robust record on which the Commission may make this determination with respect to the revised plan given the nature of the Commission's proposed changes, which primarily address increased investments in EWR (thereby producing less electricity overall and reducing associated emissions). Even assuming that Commission actions (or inactions) in this IRP with respect to the fate and use of existing power supplies results in some level of environmental impairment – albeit within the parameters of applicable environmental laws and permitting limits as determined by the Advisory Opinion – the Commission further finds that, given the full vetting of alternatives and options considered through the modeling and analysis by DTE Electric, the Staff, and other parties, there are no feasible and prudent alternatives consistent with the promotion of the public health, safety, and welfare. Indeed, the specific actions authorized by the Commission in the plan, with the Commission's recommended changes, are for increased EWR, DR, and conservation voltage reduction – all recognized to be environmentally beneficial. The retirement dates of the Belle River and Monroe coal-fired power plants will be considered in future IRPs; as discussed in this order, the Commission is not approving DTE Electric's retirement dates of 2029/2030 for Belle River because of the weaknesses identified in the analysis.

In future IRP proceedings, the Commission expects to coordinate with EGLE on the inclusion of public health and environmental justice considerations as part of the environmental information EGLE shares with the Commission under Section 6t. Public health impacts are inherent in EGLE's responsibilities as an environmental regulator, as many laws, rules, and permitting requirements are tied back to health and environmental indicators. The Commission disagrees with the ALJ's finding that it is appropriate for the utility or the Commission to explicitly quantify

public health impacts as proposed by the intervenors. Such a quantification is not required by Section 6t or by MEPA, and presents complexities outside the Commission's expertise and jurisdiction. The Commission finds that the statutory dictates, supported by the requirements of the MIRPP and the IRP Filing Requirements, are sufficient to make the findings required by MEPA. The Commission also notes that the Michigan Inter-Agency Environmental Justice Response Team was created by Governor Whitmer,⁸ and the Commission anticipates that additional guidance in this area may be forthcoming from this task force after considering stakeholder input through the newly created Michigan Advisory Council for Environmental Justice.

D. Sales Forecast and Peak Demand (MCL 460.6t(5)(a))

1. Electric Vehicle Forecast

DTE Electric's electric vehicle (EV) forecast was based on *Plug-In Electric Vehicle Sales Forecast Through 2025 and the Charging Infrastructure Required*, issued by the Edison Electric Institute (EEI) on June 28, 2017 (EEI Report). 4 Tr 997. The Attorney General argued that reliance on the EEI Report produced a forecast that is too high, because Michigan has no state incentives for EVs and EV market share in Michigan is lower than the national average. 7 Tr 2366. The Attorney General advocated a lower forecast based on the Energy Information Administration Annual Energy Outlook (EIA AEO) forecast. 7 Tr 2387; Exhibit AG-4. Conversely, ELPC *et al.* argued that reliance on the EEI Report produced a forecast that is too low because the information is outdated. 7 Tr 1925-1926.

⁸ See, Executive Order No. 2019-02.

The ALJ found DTE Electric's EV forecast to be reasonable for this IRP. PFD, p. 126. She observed that the EEI Report is a recognized industry source, and that updated information about EV adoption in Michigan will be available for use in the company's next IRP.

In exceptions, the Attorney General contends that the ALJ erred by simply relying on the fact that DTE Electric's projections fall between those of ELPC *et al.* and the Attorney General. The Attorney General contends that the EEI Report is not a reliable source of information for Michigan because this state will not see the high EV adoption rates associated with other states. 7 Tr 2366-2368. The Attorney General argues that the Commission should adopt her alternative forecast in Exhibit AG-4.

This is a rapidly changing area, and the Commission agrees with the ALJ that the EEI Report is a reliable source of information for purposes of this IRP. Utility EV programs were recently implemented by Michigan utilities including DTE Electric,⁹ and this market is expected to be dynamic going forward. The Commission accepts DTE Electric's EV forecast.

2. Commercial and Industrial Forecast

The Attorney General argued that DTE Electric's commercial and industrial (C&I) load forecasting methods were inconsistent, in that the company applied different time periods (for projection) to different commercial sectors. 7 Tr 2363-2364. MEC/NRDC/SC also objected to the IRP's C&I forecast on grounds that its assumptions about prior energy efficiency and EWR savings are overstated, resulting in an overstatement of the amount of energy the utility will need to produce or acquire. 7 Tr 2697-2700.

The ALJ found DTE Electric's C&I sales forecast to be reasonable, stating that "DTE has amply demonstrated that its forecasting accuracy, at least in the recent past, is quite high, both on a

⁹ See, May 2, 2019 order in Case No. U-20162, pp. 100-115.

total sales and customer class basis.” PFD, p. 129; 4 Tr 1019-1020. The ALJ further found MEC/NRDC/SC’s projection to be an outlier. *See*, 4 Tr 1022-1023.

In exceptions, the Attorney General contends that the ALJ erred in relying on the historical accuracy of the company’s sales projections, and that the PFD would result in DTE Electric using arbitrary methods that only satisfy internal company goals. The Attorney General recommends that the Commission conduct a review of DTE Electric’s forecasting process to ensure that it follows common industry practices.

In reply, MEC/NRDC/SC support the Attorney General’s exception and assert that the forecasts rely on arbitrary assumptions and methods.

The Commission agrees with the ALJ and finds that the forecasts are not arbitrary. DTE Electric explained its reasons for applying different time periods to different commercial sectors, and the Commission, like the ALJ, finds them to be credible. 7 Tr 2365, 4 Tr 1025. The Commission accepts the C&I forecast in the IRP.

3. Staff Recommendations

The Staff made three recommendations for improving DTE Electric’s sales forecasting in its next IRP, stating that the company should: (1) determine and report the mean absolute percentage error (MAPE) on monthly energy sales and peak load; (2) use a shorter historical period for weather normalization; and (3) increase the granularity of the data used in its regression models. DTE Electric agreed to the first recommendation and indicated that it would consider the other two. PFD, p. 130.

The ALJ recommended that the Commission adopt the first two proposals, and that the company report on its steps toward implementation of all three in its next IRP. *Id.* No exceptions

were filed. The Commission finds the Staff's suggestions to be reasonable, and adopts the findings and recommendations of the ALJ.

E. Capacity Need and Standard Offer Cap (MCL 460.6t(5)(j) and (5)(k) and CON order)

In its recent decision addressing DTE Electric's obligations under PURPA, the Commission found that the company's "use of and reliance on the phrase 'persistent capacity need' in its implementation of its PURPA obligations is not appropriate and contravenes the intent of PURPA." September 26 order, p. 46. The Commission also noted that DTE Electric's capacity position would be reexamined in this IRP case, as well as its PURPA standard offer cap of 550 kilowatts (kW). September 26 order, p. 58.

In the instant case, DTE Electric again asserted that it does not have a persistent capacity need for 10 years, until the retirement of the Belle River units in 2029/2030. The company continues to support the concept of a "persistent" capacity need as the trigger for paying full avoided costs to qualifying facilities (QFs) under PURPA. Accounting for the retirement of St. Clair 1 and the closure of the GDRRF, DTE Electric posited a capacity shortfall of 67 MW for 2019/2020 (to be addressed through the MISO public resource auction (PRA)), and a capacity surplus for the following four years. Exhibit A-67.

MEC/NRDC/SC argued that DTE Electric does have a near-term capacity need, which is masked by the company's decision to include unexplained permanent additions to its generation resources in the 2020-2024 time frame "which are just enough to conveniently ensure that DTE shows no capacity need until Belle River retirements begin." 7 Tr 2759. MEC/NRDC/SC noted that many of the starting point wind and solar resources are unapproved (as discussed above), and argued that only resources approved by the Commission for cost recovery should have been included. MEC/NRDC/SC indicated that their analysis showed a capacity need each planning year

(PY) from 2023 through 2030. 7 Tr 2764; Exhibit MEC-59. MEC/NRDC/SC argued that DTE Electric is required to pay the full avoided capacity cost to a QF with a legally enforceable obligation (LEO) in the company's PURPA queue when there is a capacity need. MEIBC/IEI also argued that the Commission should find that renewable resources fill a capacity need.

The ALJ found that DTE Electric was only able to avoid showing a capacity need over the first 10 years of the IRP by including unexplained and unapproved generation resources in the starting point. PFD, p. 134; *see*, Exhibits A-6, A-7, A-67, and MEC-59. The ALJ noted that the Commission has already opined that discrimination against QFs may result from a utility's decision to address a capacity need with company-owned resources, while declaring that it has no capacity need. *See*, CON order, p. 78. The ALJ found that DTE Electric has a capacity need in the next five years, but the amount of the need is unclear. PFD, p. 134. She found that the company needs, at a minimum, to replace the 44 MW of capacity lost as a result of the closing of the GDRRF, and recommended that the Commission require DTE Electric to consider replacing that capacity with QF energy and capacity. She further recommended that the Commission consider MEC/NRDC/SC's proposal regarding the right of a QF with an LEO to serve the need. *See*, 7 Tr 2752.

In exceptions, GLREA contends that the Commission must quantify the capacity shortfall and must rectify the utility's mistakes more quickly than what is called for in the PFD. GLREA argues that the Commission should protect customers from the two PCAs which call for the addition of another large, utility-owned gas generating plant. GLREA contends that the proposal for construction of another new plant belies the assertion of no capacity need. GLREA further posits that EWR and VGP program forecasts are either intended to address a capacity need or to provide excess capacity. GLREA supports MEC/NRDC/SC's calculation of capacity shortfalls in Exhibit

MEC-59 and urges the Commission to direct the company to fill its near-term shortfall through PPAs with QFs at full avoided cost. GLREA also urges the Commission to adopt a mechanism for identifying interim capacity needs on an annual basis.

ELPC *et al.* also favor an explicit finding of capacity need and amount, and also support the amounts provided by MEC/NRDC/SC in their analysis wherein they removed the starting point resources that are unapproved from Exhibit A-6, and which shows a capacity need of 82 MW in PY 2023-2024, 55 MW in PY 2024-2025, 6 MW in PY 2025-2026, and 389 MW in PY 2029-2030. Exhibits A-6, MEC-59; 7 Tr 2759-2764. Applying the same methodology to the company's assessment of capacity need in Exhibit A-7, MEC/NRDC/SC also found a 93 ZRC shortfall in PY 2019-2020, a 116 ZRC shortfall in PY 2022-23, and a 16 ZRC shortfall in PY 2023-24, and ELPC *et al.* support these assessments as well. *Id.* ELPC *et al.* describe the utility as thumbing its nose at PURPA, and point out that, despite contending that it has no capacity need, DTE Electric entered into PPAs for 100 and 200 ZRCs in PY 2019-2020 and 2020-2021, respectively. Exhibit A-7. ELPC *et al.* also note that the application in the CON case (Case No. U-18419, Application, p. 4) asserts a substantial capacity need beginning in 2022. ELPC *et al.* contend that failure by the Commission to find and quantify the capacity need will effectively sanction discrimination against QFs.

In its exceptions, the Staff argues that DTE Electric has no capacity need at this time and thus an RFP was not required under Section 6t(6). The Staff observes that DTE Electric forecasts no capacity need during the planning period, and that, if a need is later found, the company can be subjected to an interim PURPA review. 7 Tr 3365.

In its exceptions, DTE Electric contends that it has no capacity need until 2030, or, stated another way, none for the next five years for purposes of PURPA and none for the next ten years

for planning purposes. The company posits that the ALJ began with a mistaken underlying premise, that is, that the starting point for the modeling reflects whether there is a capacity need. The company describes the starting point as a snapshot in time, and the plan itself as the analysis, which takes into consideration the capacity position as it evolves. DTE Electric contends that MEC/NRDC/SC should have considered Exhibit A-7 (long-term) rather than Exhibit A-6 (short-term) in their analysis of the capacity position, and that MEC/NRDC/SC's claimed capacity need findings arise only if the statutorily-required RPS and VGP assets are removed from the analysis and the changes resulting from the selected levels of EWR, DR, and the CVR/VVO pilots are ignored. 3 Tr 484. As with the starting point, DTE Electric argues that resources intended to fulfill RPS, VGP, and the company's clean energy and carbon reduction goals are not being built or acquired to meet a capacity need, and QFs do not compete with demand-side resources.

DTE Electric asserts that it does not use any unexplained resources, and is not using RPS or VGP resources to address Tier 2 retirements. *See*, CON order, p. 126. DTE Electric again notes that taking the unapproved renewables out of the starting point still did not result in a capacity need until 2029. Exhibit S-6.2, p. 2. Finally, DTE Electric contends that the loss of the GDRRF and St. Clair 1 capacity also does not produce a capacity need. Exhibit A-67; 3 Tr 485. The company states that it had "a temporary one-time shortfall in PY 2019-20, which the Company covered by purchasing additional capacity in the MISO market in March of 2019," and the company had previously projected being long on capacity. DTE Electric's exceptions, p. 24. The company asserts that the 1 MW shortfall in PY 2022-2023 that appears in Exhibit A-67 is within the margin for error and easily made up in the MISO market. Finally, DTE Electric notes that the ALJ cited no evidentiary support for her finding that the 44 MW associated with the GDRRF

constitutes a capacity need, and posits that a capacity loss does not require a one-for-one replacement.

In reply, Geronimo argues that DTE Electric has a capacity need and that the Staff and the company are wrong. Geronimo points out that the company relies on RPS and VGP resources to fill capacity needs, and argues that cost-effective resource planning principles dictate that these assets should be used to meet resource adequacy requirements, since it would be inefficient to acquire capacity for a capacity need that is already being met. Geronimo supports the use of MEC/NRDC/SC's testimony to establish a capacity need, and contends that further delay in making such a finding will allow the company to avoid the development of the 1,429 MW of QF projects in its interconnection queue. Ann Arbor makes the same arguments in its replies.

In its reply, Energy Michigan makes the same arguments, and contends that the attempt to define resources as non-capacity "is a classic example of a vertically integrated utility weaponizing its control of the planning process to prevent unwanted third parties from competing with it." Energy Michigan's replies to exceptions, pp. 7-8. Energy Michigan argues that this is what PURPA was designed to prevent.

In its reply, GLREA opposes approval of the IRP and urges the Commission to find a capacity need lest PURPA be circumvented.

MEIBC/IEI also contend that there is a capacity need and urge the Commission to reject the company's and the Staff's exceptions, because the utility should not be allowed to label resources as connected to a particular statute and then claim that the connection means that the resource does not count towards a resource need. MEIBC/IEI argue that such a finding would violate PURPA and thwart consideration of potentially lower cost third-party alternatives. MEIBC/IEI urge the Commission to find that capacity need under Section 6t(8)(a) encompasses the use of new

resources that are developed in order to meet RPS requirements, VGP requirements, or company goals.

In its reply, DTE Electric contends that it has no capacity need until 2030 and urges the Commission to reject the intervenors' exceptions. First, DTE Electric states that PY 2019-2020 is not a planning year that is included in the IRP, and the one-time capacity need was filled with market purchases. Next, DTE Electric contends that MEC/NRDC/SC's methodology is erroneous because it removes existing company resources and resources that are required to meet the RPS, and because additional wind farms were approved by the Commission during the pendency of this case. DTE Electric contends that it has been unable to duplicate the results that ELPC *et al.* claim they have derived from applying MEC/NRDC/SC's methodology to Exhibit A-7. The company urges the Commission to reject the intervenors' exceptions and claimed results because they require removing ZRCs associated with Commission-approved wind projects which are necessary to meet the 15% RPS requirement.

DTE Electric also argues that GLREA's capacity need assessment is inaccurate because it relies on EWR and VGP program forecasts as evidence of a capacity need. The company argues that demand-side forecasts are not evidence of a PURPA capacity need because, in the September 26 order, the Commission found that QF generation competes only with supply-side resources. September 26 order, p. 57. DTE Electric further argues that it does not acquire VGP assets to meet a capacity need, but rather solely to meet customer demand for renewable energy, and no capacity costs are avoided by acquiring VGP assets. 2 Tr 269. The company contends that these assets should be treated the same way that RPS assets are treated in the context of PURPA. The utility also asserts that Exhibit MEC-59 is not reliable because it, in turn, relies on Exhibit A-6, which does not reflect the company's actual capacity position but rather only the starting point.

The company notes that PURPA capacity determinations are made on a five year basis, and thus no additional mechanism is required.

In their reply, MEC/NRDC/SC contend that the Commission should determine DTE Electric's capacity need at the starting point and not after the utility has selected all of the resource additions that it favors. MEC/NRDC/SC observe that the company wants the Commission to determine capacity need after the PCAs have been established and the EWR and other demand-side resources have been added in, at which point, MEC/NRDC/SC note, there will likely never be a capacity need.

The Commission is not approving any supply-side resources included in DTE Electric's defined PCA. Exhibits A-7, A-67, A-18. As noted above, in order to review the company's proposed renewable energy additions, the Commission is directing DTE Electric to accelerate its next REP filing to no later than April 1, 2020. In addition, the Commission finds that DTE Electric's next PURPA review must also be accelerated, to consider the company's capacity position, and directs the company to file an application for a PURPA review, including avoided costs, standard tariff, and capacity need, no later than November 13, 2020.¹⁰

Finally, DTE Electric also proposed that the standard offer cap be reduced from 550 kW to 150 kW to make it consistent with the DG program. 2 Tr 263-264. The ALJ found that the standard offer cap should remain at 550 kW because it was affirmed very recently, and because, as GLREA pointed out, there is no reason why the PURPA requirements should match the DG program requirements, since the two programs are unrelated. PFD, p. 135. No exceptions were

¹⁰ This decision modifies the previous PURPA review filing date provided in the September 26 order, p. 58.

filed. The Commission agrees with the ALJ's reasoning and adopts her findings and recommendations.

F. Supply-Side Resources (MCL 460.6t(5)(j))

With respect to supply-side resources, the ALJ already determined that DTE Electric should have fulfilled the RFP requirement of Section 6t(6). She addressed the following additional concerns with the supply-side resources proposed in the IRP.

1. Wind Resources

MEC/NRDC/SC argued that DTE Electric should have provided an assessment of the cost of a wind PPA with a third party generator located outside of MISO Zone 7 as part of the IRP, since Iowa and Indiana wind appear to be lower cost than Michigan wind. The ALJ indicated that she agreed. PFD, pp. 135-136. No exceptions were filed. The Commission agrees with the ALJ and finds that in its next IRP filing DTE Electric shall include such an assessment.

Turning to the modeling inputs for wind, DTE Electric relied on the National Renewable Energy Laboratory (NREL) 2018 Annual Technology Baseline (ATB) mid-level forecast, and assumed certain cost reductions. 5 Tr 1297, 1310-1311. Assumptions related to the capacity factor and O&M costs for future wind parks were drawn from the NREL 2018 ATB forecast for techno-resource group 7 (TRG-7).

MEC/NRDC/SC objected to the reliance on TRG-7, arguing that it is one of the most expensive wind resource types and thus resulted in overstated installed costs and lower capacity factors in the IRP. 7 Tr 2539. MEC/NRDC/SC noted that a recently installed Michigan wind project and the 2019 MISO Transmission Expansion Planning Report (MTEP19) both reflect lower cost assumptions than those used by DTE Electric based on TRG-7. MEC/NRDC/SC also

showed that DTE Electric has a higher average capacity factor for wind parks than was applied in the IRP, and argued that the LCOE applied by the company was overstated. Exhibit MEC-134.

The ALJ found “DTE’s assumptions about installed cost and net capacity for new wind projects to be reasonable based on this record.” PFD, p. 137. The ALJ found the company’s explanation as to why it relied on the NREL assumption for TRG-7 to be reasonable, and noted the public opposition to new wind development in the TRG-6 zone. However, the ALJ found that MEC/NRDC/SC’s LCOE analysis showed that the company’s wind costs may be inflated, and she recommended that the Commission reconsider the wind generation modeling inputs in the company’s next IRP. PFD, p. 137. No exceptions were filed. The Commission agrees with the ALJ and adopts her findings and recommendations.

2. Solar Resources

Again, DTE Electric used the NREL 2018 ATB forecasts for solar capacity, and assumed certain cost reductions. 5 Tr 1298-1299; Exhibit A-19. ELPC *et al.* argued that the company’s assumptions were arbitrary, resulting in solar costs that were overstated by 39%, and that the LCOE was overstated by over \$19 per megawatt-hour (MWh). ELPC *et al.* contended that the NREL 2018 ATB forecast for solar is overly conservative and outdated, and should be converted to a linear forecast for use in the Strategist model. ELPC *et al.* also objected to use of the Q1 2017 U.S. Solar PV System Benchmark for projecting solar O&M costs, arguing that they are overstated as a result. ELPC *et al.* contended that the applied inflation rate of 2.5% for both capital and O&M costs for solar is too high, that the O&M escalation rate of 2.13% is too high, and that the LCOE analysis should use the same degradation factor as was used in the modeling. After modifying all of these solar inputs, ELPC *et al.* argued that the actual LCOE for solar is \$50.09/MWh, rather than the \$69.48/MWh posited by DTE Electric.

The ALJ recommended that the Commission adopt ELPC *et al.*'s proposal that the NREL ATB capital and O&M costs be converted to linear data for input into the Strategist model. PFD, p. 140. The ALJ also found that the NREL 2018 ATB data should be adopted for the O&M costs as well, rather than the alternative source used by DTE Electric. The ALJ agreed with ELPC *et al.* that the lower PACE Global consumer price index (CPI) inflation factor for solar should be applied, and that the LCOE analysis should use the same degradation factor as was used in the Strategist modeling. *Id.* The ALJ found that these adjustments should be made to the solar modeling for the company's next IRP.

In exceptions, DTE Electric argues that its solar inputs were appropriate, asserting that labor costs are the primary driver of solar O&M, that ELPC *et al.*'s degradation value lacks citation, and that any alleged uncertainty is addressed by risk analysis. 3 Tr 489-501, 5 Tr 1305-1306. The utility notes that the Staff accepted its solar inputs. 7 Tr 3355.

In reply, ELPC *et al.* contend that the solar O&M data set was not supported and the cost escalation rate is too high. ELPC *et al.* argue that they provided evidence showing that, with corrections to the solar inputs, the solar portfolio cost is \$106 million less than the company's reference case. 4 Tr 732.

Additionally, MEC/NRDC/SC and ELPC *et al.* argued that DTE Electric's assumed 50% effective load carrying capacity (ELCC) for solar until 2024 is understated. 7 Tr 2008-2009. These intervenors argued that the 50% number applies to older fixed-tilt systems, and that, based on available data, DTE Electric's newer single-axis tracking system should have an average ELCC of 65.8% or 66%. 7 Tr 2008-2009, 2547-2548. They also argued that the company should not have used a simple average of capacity factor and credit in its modeling rather than a leveled factor and credit.

The ALJ found that DTE Electric failed to use an ELCC consistent with the company's actual system. She recommended that an ELCC of 65.8% be adopted for use in the company's next IRP. PFD, p. 142.

In exceptions, DTE Electric argues that the method applied by the intervenors is not sustainable, because ELCCs are expected to drop as renewable penetration increases. 3 Tr 517-524. DTE Electric supports its modeling, which assumed a solar ELCC of 50% through 2023, declining each year by 2% until 2033, as being consistent with MISO forecasts. 3 Tr 380-381.

In reply, GLREA argues that the 50% ELCC input is flagrantly wrong since the company has been using 60% for existing facilities for three years. 7 Tr 3122.

In their reply, ELPC *et al.* also characterize DTE Electric's ELCC 50% number as fiction and advocate the use of 65.8% for single-axis tracking projects.

MEC/NRDC/SC also argue in reply that DTE Electric should be required to use a capacity credit that corresponds to the actual technology being modeled, and that 50% corresponds to older, less efficient systems. MEC/NRDC/SC support 65.8%, and contend that the totality of solar input errors add up to a bias against solar resources.

As with the peaker analysis, the Commission finds that the issue of the correct solar inputs is best addressed in the next round of updates to the MIRPP, which will commence in July of 2022. The Commission accepts the solar inputs used by DTE Electric as reasonable for purposes of this IRP, and directs the Staff to include the proposed changes addressed by the parties herein as topics for discussion in the next round of updates. The Commission prefers to use the planning parameter process for addressing issues concerning resource inputs both because of their general applicability and because that process should result in a robust and contextualized discussion of potential inputs.

3. Distributed Generation

DTE Electric screened DG (including customer-owned solar and behind-the-meter CHP) out of its resource analysis for several reasons, including cost and the fact that DG is not dispatchable or schedulable. 3 Tr 509. Soulardarity, GLREA, and Ann Arbor took issue with this decision. *See*, 6 Tr 1748-1750.

The ALJ agreed with the intervenors and found that DTE Electric's decision was not well-supported on the record. PFD, p. 143. The ALJ stated that the capital costs of behind-the-meter generation are not borne by the utility. Noting that the Commission discussed the importance of DG to the IRP process in the MIRPP, the ALJ found that in its next IRP DTE Electric should provide a complete analysis of the costs and benefits of DG as a supply-side resource. *See*, MIRPP, pp. 2, 18, and 20.

In exceptions, Soulardarity argues that it provided specific evidence on the benefits of DG, and requests that the Commission conduct its own investigation into the benefits of DG and require DTE Electric to include community solar in any analysis of DG. *See*, Exhibits SOU-7, SOU-12.

In exceptions, DTE Electric argues that it was appropriate to screen out DG because it is not a resource that the company selects in modeling. The company contends that customer-owned DG is currently too expensive relative to other resources for use in the LCOE resource screen. 3 Tr 508-509, 6 Tr 1745-1751; Exhibit A-3 Revised, pp. 113-123. The company also asserts that DG does not currently make the system as a whole more reliable, and usually must be shut down when there is a system outage. However, DTE Electric indicates that it will evaluate DG in the next IRP.

In reply, GLREA contends that DG can provide valuable ancillary services including voltage and frequency regulation. 7 Tr 3065, 3099. GLREA argues that the weakness of the market does not mean that DG has no value at all. GLREA asserts that new technology allows for some secure power supply during a grid failure, and that the company's assumptions about DG are outdated. GLREA urges the Commission to require utilities to model DG in future IRPs.

In its reply, Ann Arbor supports Soulardarity and argues that the record contains significant evidence of the benefits of DG, and urges the Commission to conduct its own investigation of these benefits.

In its reply, DTE Electric contends that the evidence presented by Soulardarity in support of community solar is not convincing and should be given little weight.

The Commission finds that a DG analysis is imperative for IRPs. The Commission finds that the pace of changes in technology and customer behavior in this area demands that DTE Electric not screen out DG in its next IRP filing. The company's rationale that DG resources are not dispatchable or schedulable is unconvincing, as the same could be said for other elements of a modern electric grid. Similarly, its arguments over cost seem to ignore the investments customers have made in these systems, and focuses only on utility-owned DG resources. The Commission directs the company to fully analyze the effects of DG on the company's plan in its next IRP filing.

4. Voluntary Green Pricing

The ALJ declined to address VGP issues, finding that they are not within the scope of an IRP proceeding and should be addressed in the company's next VGP review. PFD, p. 145.

In exceptions, Soulardarity argues that the ALJ erred in not requiring DTE Electric to address VGP issues more fully in the IRP given that the VGP program is helping to meet load projections.

Soulardarity contends that DTE Electric's assumptions about VGP enrollment are poorly supported and failed to address fluctuations due to economic factors. Soulardarity also expresses concern that falling VGP enrollment will be used as an excuse to build another natural gas plant.

In reply, the Staff contends that projected VGP amounts should be considered and reviewed in IRP cases, and argues that the Staff showed that the amount of VGP capacity in each pathway is reasonable based on the information available at the time. 7 Tr 3315. The Staff agrees with the ALJ that other granular VGP matters should be handled in VGP review cases every two years.

In its reply, Ann Arbor supports Soulardarity and argues that the utility should be required to provide an adequate assessment of its VGP program in the IRP, which includes appropriate outreach to customers, so that enrollment can be meaningfully forecast.

In their reply, MEIBC/IEI also support Soulardarity and contend that this proceeding must include an assessment of DTE Electric's VGP program, because it is an integral part of the IRP. MEIBC/IEI contend that VGP resources fill a capacity need, and that this capacity should be opened up to QFs and other third-party alternatives.

As noted above, DTE Electric has failed to adequately support any element of its plan relating to supply-side resources, and the Commission is not approving any supply-side resources, including VGP resources, in this case. Nor does the record allow the Commission to approve the resources necessary to meet VGP demand. Should DTE Electric wish to request Commission approval of resources to meet the VGP demand, the company is advised to seek that approval in another case, such as a CON, amended IRP, REP, or rate case, with a full and complete record which includes an analysis of alternatives to meet that VGP demand, supported by information obtained from an all-source RFP.

G. Demand-Side Resources (MCL 460.6t(5)(d) and (5)(f))

1. Energy Waste Reduction

In its EWR analysis for the IRP, DTE Electric used tiered incentive costs and included program administration costs escalated by inflation. DTE Electric evaluated EWR levels ranging from a 1.5% starting point to a 2.25% endpoint (in 0.25% increments), and applied an average line-loss rate of 6.8% to EWR savings. Exhibit A-21. In the end, the company states, “The defined PCA increases the EWR level to 1.75%, starting with an increase to 1.625% in 2020, and full implementation of 1.75% in 2021 through 2024.” 6 Tr 1566; Exhibit A-21. The flexible PCA explores EWR levels from 1.75% to 2.0%. *Id.*

ABATE argued that even 1.75% EWR is too costly and unattainable. Conversely, the Staff supported a 2% EWR goal. Soulardarity argued that DTE Electric fails to offer adequate EWR programming to low-income customers.

MEC/NRDC/SC and ELPC *et al.* argued that the IRP is biased against energy efficiency, because DTE Electric’s analysis: (1) fails to recognize the benefits of EWR that extend beyond the IRP period (which MEC/NRDC/SC called “end effects”); (2) incorrectly tied non-program EWR cost increases linearly to program cost increases; (3) incorrectly applied average line losses for all hours rather than marginal line losses for on- and off-peak hours; and (4) missed opportunities to optimize EWR. 7 Tr 2664-2673. The ALJ agreed with each one of these criticisms.

First, the ALJ found that EWR costs are front-loaded, whereas the benefits accrue over 10 to 20 years, or more. PFD, pp. 146-147. She noted that this compares unfavorably to an asset such as a gas plant, where the costs are spread over the long life of the asset (along with the benefits). The ALJ was persuaded by MEC/NRDC/SC’s analysis showing that the company overestimated

the NPVRR of the different levels of EWR, and that, after correcting this flaw, the 2.0% EWR level had the lowest NPVRR. 7 Tr 2674-2678. In light of this evidence, the ALJ found that DTE Electric's proposed 1.75% EWR level was questionable. PFD, p. 147.

Second, the ALJ agreed that non-program costs should not be assumed to grow at the same rate as program costs. *Id.* Noting that the company has more than a decade of experience implementing its EWR program, the ALJ found that there should be more stability in non-program costs, and that MEC/NRDC/SC's proposal that education; evaluation, measurement, and validation (EM&V); and other non-program costs be tied to energy savings (rather than to EWR spending) should be adopted for modeling EWR. PFD, pp. 148-149.

Third, noting several publications that indicate that energy efficiency savings should be grossed-up by marginal line losses (on- and off-peak), the ALJ agreed that "EWR savings occur on the margin and thus should be evaluated using marginal line loss rates." PFD, p. 150. The ALJ observed that there is no information on DTE Electric's marginal line loss rate, and that even the average line loss rate dates from 2007. She found MEC/NRDC/SC's alternative proposal (to multiply the average line loss rate by 1.5%) to be reasonable for now, but recommended that in future IRPs the parties propose alternatives. PFD, p. 151.

Fourth, the ALJ agreed that the EWR analysis was not optimized because DTE Electric assumed that EWR would ramp up and remain at the same level thereafter. She found that MEC/NRDC/SC's approach of ramping up and then backing down EWR after 2025 results in decreases to the NPVRR, and addresses DTE Electric's concern about saturation of the program in later years. PFD, p. 152.

The ALJ noted that "based on USRCT [utility system resource cost test] scores, all levels of EWR examined in this proceeding are cost-effective." PFD, p. 153. The ALJ concluded:

In summary, the PFD finds that in its next IRP: (1) DTE should be directed to incorporate an end effects analysis as part of its EWR optimization; (2) DTE should tie its assumptions about non-program cost increases to increased savings rather than increased spending; (3) whether directly or via a proxy method, DTE's line-loss savings should be based on marginal on- and off-peak savings rather than average line losses; and (4) DTE should evaluate different approaches to ramping EWR savings up and down over the course of the IRP period to determine if there are cost-savings to such approach.

Id.

In exceptions, MEC/NRDC/SC argue that the IRP should be rejected just as the ALJ recommended; but they also argue that, if it is not rejected, the Commission should adopt an optimal level of EWR and save any ruling on cost recovery for an EWR plan case.

MEC/NRDC/SC take exception to the ALJ's failure to adopt an optimal EWR level and recommendation in favor of cost recovery for the amount associated with the 1.75% EWR savings level. MEC/NRDC/SC contend that the record strongly supports the 2% EWR level and urge the Commission to adopt this level as part of any recommended changes to the IRP.

In its exceptions, the Staff argues that the Commission should reject the ALJ's recommendation to deny the IRP, so that EWR can be ramped up sooner than 24 to 30 months from now. The Staff submits that an EWR level of 1.75% in 2020 and 2% in 2021 would benefit customers and enhance the next IRP. The Staff contends that the ALJ's recommendation to wait two years or longer to implement the increased EWR level is a lost opportunity for ratepayers, who would lose the resulting benefits over the next two years.

In its exceptions, DTE Electric argues that its method for calculating non-program costs is supported by the March 28, 2017 order in Case No. U-18262, p. 8. DTE Electric states that it consistently budgets EM&V costs as about 5% of overall spend in EWR plan filings, and these filings have been approved. 6 Tr 1588; Exhibit A-21. The company also describes these costs as stable after the initial cost increases associated with higher levels of EWR.

DTE Electric also disagrees regarding line losses applied to EWR. The company multiplied the estimated savings at customers' meters by one plus an average line loss rate of 6.8%, which, it insists, is based on the best available information, as an approximation of the impact of EWR programs. 6 Tr 1590-1591; Exhibit MEC-51. DTE Electric contends that MEC/NRDC/SC's marginal line loss rate should be rejected because 88% of EWR savings occur during non-peak hours, and MEC/NRDC/SC rely on outdated or irrelevant data. The utility contends that line loss factors vary widely across utilities, and it may be reasonable to use an average from a broader set of utilities.

DTE Electric further argues its modeling was no more conservative than in other proceedings with respect to EWR, noting that in the CON proceeding (Case No. U-18419) it proposed 1.5%, and in its latest EWR plan filing (Case No. U-20373) it proposed 1.625% in 2020 and 1.75% in 2021. The company contends that the Staff's proposed 2% is not based on empirical evidence, and that only two utilities in the nation have achieved savings of 1.75% or more. 6 Tr 1575-1576.

In reply, Energy Michigan argues that the failings in the EWR analysis should not be allowed to stand until the next IRP filing, but should be addressed in this proceeding. Energy Michigan supports the 2% proposal made by the Staff and MEC/NRDC/SC as more reasonable and cost effective than the company's proposal.

In its reply, the Staff submits that the Commission is not bound by any specific approach to calculating non-program costs, and that the March 2017 order cited by DTE Electric has no bearing on this issue.

In its reply, Ann Arbor contends that the ALJ should have made a finding on the optimal amount of EWR, and urges the Commission to find the 2% level to be economically optimal and well supported on the record.

In its reply, DTE Electric contends that its EWR proposal is reasonable and cost effective. 6 Tr 1548-1571. DTE Electric argues that, in any case, the Commission may not order the company to implement the 2% level supported by the Staff and MEC/NRDC/SC, because there is no statutory authority to do so; the Commission may only recommend a change under Section 6t(7). Next, the company observes that the costs it included in the IRP are sufficient only to get to 1.75% by 2021, so a higher level, without additional cost approval, would constitute a taking. The company asserts that the Commission must specify the approved costs under Section 6t(11), and so the cost decision may not be deferred to another proceeding as the Staff suggests.

With respect to the alleged shortcomings, DTE Electric contends that adding an end effects assessment is not necessarily helpful and the company should be given the flexibility to explore other ways of incorporating long-term benefits, such as through the cost inputs. DTE Electric indicates that once it selects a new modeling tool it will meet with the Staff to discuss including the benefits of EWR in the new model, but contends that the Commission should not require an end effects analysis.

In their reply, MEC/NRDC/SC contend that DTE Electric failed to comply with the requirements for modeling EWR parameters under various scenarios as stated in the IRP Filing Requirements and the MIRPP. MEC/NRDC/SC contend that the record shows that the company can achieve more than 1.75% starting in 2021, and argue that they showed the four ways in which the analysis could be improved to remove the bias in favor of lower levels of efficiency.

MEC/NRDC/SC support the Staff in favoring 2% in 2021.

MEC/NRDC/SC also support tying non-program EWR costs to savings increases over 1.5%. MEC/NRDC/SC contend that the company's approach increases administrative costs in direct proportion to increases in spending on programs. Like the Staff, MEC/NRDC/SC argue that the

Commission is not bound by a particular formula, but that it only set upper limits in the March 28, 2017 order in Case No. U-18252. MEC/NRDC/SC state, “increasing efficiency savings (from 1.5% to 1.75%, or from 1.75% to 2%) will likely require higher incentives and more aggressive marketing, and that the costs associated with these measures will not result in proportionately higher levels of spending on administrative costs.” MEC/NRDC/SC’s replies to exceptions, p. 44.

MEC/NRDC/SC also argue that DTE Electric’s next IRP should gross up EWR savings using marginal on- and off-peak line losses rather than average, because it makes more sense to differentiate between line losses during peak and non-peak periods. MEC/NRDC/SC contend that using the average rate biases the IRP against greater efficiency by discounting the generation-level of EWR savings. MEC/NRDC/SC contend that they have provided updated authoritative support on the record for the use of marginal losses including evidence from the company’s own consultant. Exhibit A-20, p. 42; Exhibit MEC-150, p. 45. MEC/NRDC/SC further observe that the 6.8% average loss rate used by DTE Electric is based on a 2007 rate case order. 6 Tr 1559.

Additionally, ELPC *et al.* argued that DTE Electric underestimated avoided transmission and distribution (T&D) capital costs from EWR. The ALJ did not agree with this suggestion, and found that the proposed avoided T&D capital costs are reasonable for purposes of this IRP. PFD, p. 151. The ALJ found that ELPC *et al.* failed to show that there were significant T&D investments that could be avoided, and ELPC *et al.* filed an exception.

The Commission agrees with the Staff and MEC/NRDC/SC regarding the level of EWR. MEC/NRDC/SC’s analysis showed that the company overestimated the NPVRR of the various levels of EWR, and that the 2.0% EWR level for 2021 is not only achievable but also has the lowest NPVRR. 7 Tr 2664-2707. Specifically, MEC/NRDC/SC showed (and the company did not refute) that DTE Electric included more than 90% of the costs of EWR through 2040, but

excluded 15% of the benefits associated with those costs because they were outside the planning period, despite the fact that the benefits are real. 7 Tr 2664-2665, 2669-2671, 2674-2682. Thus, the Commission recommends that DTE Electric revise the IRP to reflect EWR levels of 1.75% in 2020 and 2.0% in 2021. The Commission is aware that DTE Electric's proposed EWR costs (which are recommended for approval, as discussed below) are based on lower percentage levels and that any alternative cost amounts may not be proposed in the revised IRP because they do not appear in the record; but the Commission also recognizes that any additional costs incurred as a result of the adoption of these higher levels may be recovered in other proceedings, subject to a showing of reasonableness and prudence.

The Commission further finds that the proposed changes to how EWR costs are determined are also better suited to review in an EWR plan case, and notes that some of the disputed issues are also currently being litigated in Case No. U-20373, DTE Electric's 2020-2021 EWR plan case. The Commission finds that pending case, and future EWR plan cases, reconciliations, or the EWR collaborative, provide a better forum for investigating the issues of how non-program costs are estimated, the optimal source of data for line losses, how to estimate avoided T&D costs, and whether ramping down in later years should be examined.

2. Demand Response

In the defined PCA, DTE Electric proposed to expand its DR portfolio and offer new DR pilots, and seeks pre-approval of \$24 million in DR capital expense from May 1, 2020, through December 31, 2022. Exhibit A-26; 6 Tr 1680. The Staff supported the company's proposed capital spending on interruptible air conditioning switches and programmable communicating thermostats (PCTs), and on the current pilot programs (with some proposed changes to those programs), but did not support the requested funding for new DR pilots. 7 Tr 3333-3340. The

Staff also disagreed with DTE Electric's assertion that newly approved summer on-peak rates should be considered DR rates. 7 Tr 3339-3340. The Staff proposed: (1) revising the Rate D1.8 tariff language so that the company can bid the PCT pilot into MISO as a DR resource; (2) revising the Bring-Your-Own-Device (BYOD) pilot so that it may be offered into the MISO market as a DR resource as well; and (3) denial of the request for pre-approval of expense for the DR pilots other than the ongoing BYOD and Electric Power Research Institute (EPRI) pilots. 7 Tr 3333-3339; Confidential Exhibit S-8.0.

Soulardarity argued that DR programs are critical for low-income customers due to their need to spend more of their income on energy bills, and the fact that they often live in poorly-insulated homes.

GLREA argued that DTE Electric should not receive pre-approval of the requested DR expense because the utility continues to ignore its obligation to fill its capacity and energy needs from QFs.

The ALJ recommended that the Commission approve the company's DR plan, but with the changes proposed by the Staff. She opined that DTE Electric's current DR portfolio is effective, but found that pre-approval of the expense identified by the Staff is unreasonable due to the lack of evidence on the record showing that all of the pilots are prudent. PFD, p. 159. The ALJ noted that the company may make future requests for DR capital expense in a rate case or a DR reconciliation case. The ALJ further found Soulardarity's concerns to be well taken but not specifically applicable to DTE Electric's IRP, and found they could be better addressed in a rate case or DR proceeding.

In exceptions, DTE Electric argues that all of the DR pilots should be approved, because they are all crucial in identifying how customers will react to specific marketing efforts, design

features, and other unique characteristics of each proposed program. 6 Tr 1667-1683. The company asserts that it has demonstrated the prudence of its proposed costs (which will be reconciled in the DR process in any case), and the lack of preapproval may delay the program.

In reply, the Staff contends that the company failed to provide sufficient detail on the new DR programs. The Staff notes that these programs can still be proposed and approved in other proceedings, and the decision to delay them is within the company's prerogative.

The Commission agrees with the ALJ and the Staff and recommends that DTE Electric revise the IRP to provide for the proposed tariff language change (to include a shorter notification window), and to remove the costs associated with proposed pilots other than the ongoing BYOD and EPRI pilots for purposes of cost approval under Section 6t(11). *See*, Exhibit A-26. The Commission acknowledges that specific tariffs and tariff language may not traditionally be dealt with in IRPs to sort out plans for future resources. DTE Electric is directed to file the suggested revisions to the tariffs as soon as practicable in a rate case or other proceeding requesting approval of the tariff language. As the Staff points out, under the current three-phase DR framework, it makes more sense for the company to propose these new pilots in a future rate case or DR reconciliation case, where more information about the scope, purpose, and cost of these pilots will be available on the record. 7 Tr 3333-3334. The Staff also notes that these new pilots are still in the exploratory phase, and the three-phase framework significantly reduces the risk of regulatory lag that existed before its adoption, such that DTE Electric may pursue these pilots and their associated costs more efficiently in other proceedings. The Commission agrees. This recommended change results in a reduction of the projected total DR capital spend in 2020 by the difference between the BYOD and EPRI costs and \$2.1 million, and reduces the capital request for

2021 and 2022 by \$2 million in each year. 7 Tr 3333; Confidential Exhibit S-8.0. These proposed revised costs are approved, below.

3. Battery Storage

DTE Electric argued that, in light of its part ownership of Ludington Pumped Storage (which offers over 1,000 MW of energy storage), additional storage has limited value. The company included only one 100 MW lithium-ion battery in the model for selection, and a solar plus storage sensitivity in the ET scenario. MEC/NRDC/SC and ELPC *et al.* argued that the storage analysis in the IRP is inadequate and should be made significantly more robust in the future; and the Staff indicated that the company should continue to investigate the use of storage in DR programs. 7 Tr 2774-2776, 3360.

Noting that DTE Electric did not object to these suggestions, the ALJ concluded that the company should be directed to undertake a comprehensive analysis of storage, such as was suggested by MEC/NRDC/SC, in its next IRP. PFD, p. 161.

In exceptions, DTE Electric argues that it should not be required to use a particular methodology in its storage analysis for the next IRP.

In reply, Ann Arbor is concerned that DTE Electric's lack of investment in battery storage will impair the city's ability to obtain redundancy during power outages. 7 Tr 2996. Ann Arbor states that it expected the company's IRP to contain an analysis of storage, DG, and microgrids because resiliency is essential.

In their reply, MEC/NRDC/SC argue that the cited methodology should be adopted by the Commission because it will result in properly quantifying all storage benefits. MEC/NRDC/SC note that DTE Electric did not rebut the method, which is the only one on the record that would

satisfy the IRP requirements for storage evaluation. 7 Tr 2773-2776. They also note that the company is free to offer any additional analysis that it wants to offer.

The Commission finds that DTE Electric's battery storage analysis is weak and does not comply with the directive of the CON order. The Commission finds DTE Electric's decision to ignore this directive very troubling, particularly given the context in which this directive to "include a better evaluation of storage options, including a quantification of storage benefits including flexibility, grid support, and ancillary services" in its IRP filing was given. CON order, p. 80. DTE Electric has – again – failed to meaningfully consider battery storage as a resource. As such, while the Commission declines to require the use of a particular methodology, it directs the company to consider applying the methodology proposed by MEC/NRDC/SC, and to include, at a minimum, a quantification of storage benefits including flexibility, grid support, and ancillary services, in its next IRP filing.

4. Conservation Voltage Reduction/Volt-Var Optimization

VVO manages system-wide voltage levels and reactive power flow to achieve specific operating objectives such as reducing losses. 6 Tr 1718. CVR is a VVO option that controls electrical equipment so as to maintain customer voltage levels in the lower portion of the allowable voltage ranges. *Id.* DTE Electric proposed to conduct a CVR/VVO pilot program in 2019-2020, in order to determine what should be the components of a permanent program which would be implemented in particular areas in 2026. 6 Tr 1717-1718; Exhibit S-10.1, p. 6. Based on an economic analysis, DTE Electric selected two types of circuits for implementation of the CVR/VVO pilot, which is expected to cost about \$0.7 million. 6 Tr 1728-1730. The company seeks preapproval of this amount, which it would recover in its next rate case. *Id.*; Exhibit A-29; Exhibit S-10.1, p. 5.

The Staff generally supported the proposal, but recommended the following four changes, as described by the ALJ:

First, Staff recommends that DTE consider existing investments such as grid modernization infrastructure when selecting CVR/VVO circuits, and that DTE fully utilize the potential and capabilities of existing infrastructure to make CVR/VVO successful. Second, Staff recommends that DTE establish Distributed Energy Resource (DER) penetration forecasting on their circuits to be used in selecting CVR/VVO circuits. Mr. Becker testified that that cost effective and/or successful CVR/VVO circuits enabled today may be subject to distribution voltage profile changes through increasing DER in the future which could require ‘additional investments and make the circuit(s) no longer cost effective.’ Third, Staff recommends that DTE incorporate circuits using DERs into the pilot program to evaluate the impacts to the electric system and CVR/VVO enabled circuit(s). Finally, the Staff recommends DTE file annual CVR/VVO-specific reporting in this docket consisting of the information in Exhibit S-10.0, in accordance with MCL 460.6t(14).

PFD, pp. 163-164 (notes omitted); 7 Tr 3375-3377.

GLREA argued that the requested cost preapproval should be denied, because the pilot is intended to reduce capacity needs and DTE Electric will be able to satisfy any capacity need from QF supply.

The ALJ found that the proposed CVR/VVO pilot program is reasonable. She noted that the program is based upon a comprehensive study conducted by a third party, and opined that the projected costs and capacity reductions appear to be reasonable and designed to reveal the cost-effectiveness of the program. PFD, p. 166. The ALJ recommended that the Commission adopt two of the Staff’s recommendations. She found that DTE Electric should consider existing investments and infrastructure, as described by the Staff, when selecting CVR/VVO circuits for the program, and should provide the annual reporting recommended by the Staff. She noted that DTE Electric already agreed to the latter proposal. PFD, p. 166, n. 272. She found the Staff’s other recommendations to be unreasonable at this time. She noted that DTE Electric provided evidence showing that accurate forecasting of DER penetration at the circuit level is not feasible,

and that the circuits chosen for the pilot reflect DER penetration that is typical of the system. Finally, she found GLREA's arguments to be unconvincing. PFD, p. 167.

No exceptions were filed. The Commission finds the ALJ's decision to be reasonable and adopts her findings and recommendations.

H. Transmission Analysis (MCL 460.6t(5)(h) and (5)(j))

DTE Electric's transmission analysis was performed by ITC and is contained in Exhibit A-39 (ITC Study). Consistent with the company's instructions to ITC, the ITC Study assumes that the existing Zone 7 capacity import limit (CIL) of 3,211 MW will remain in effect throughout the study period. 4 Tr 797-798, 805-810; 6 Tr 1464; Exhibit A-4 Revised. As a result of apparent voltage constraints in the IRP, ITC had recommended the placement of a static volt-ampere reactive compensator (SVC) at the Fermi Nuclear Power Plant (Fermi) substation to mitigate voltage issues. DTE Electric later changed the operating parameters at Fermi, which eliminated the need for the SVC option. 7 Tr 2246-2247. On the record, DTE Electric later provided an evaluation of two additional scenarios, with and without the change to the voltage criteria at Fermi. 6 Tr 1466-1468. Under all scenarios where the voltage criteria changed, the CIL increased substantially. *See*, 6 Tr 1466. The Attorney General and ITC appeared to disagree with the decision to retain the current CIL throughout the ITC Study. 7 Tr 2372 (Attorney General); 7 Tr 2240, 2273 (ITC).

MEC/NRDC/SC criticized the ITC Study because DTE Electric did not evaluate any options to improve import capability for Zone 7 and ignored reliable projections of increases to the CIL in future years. MEC/NRDC/SC argued that surrounding RTOs expect to have excess capacity and energy, and that DTE Electric should have explored the possibility of entering into PPAs with

providers outside of Zone 7. MEC/NRDC/SC contended that constraints on CIL and effective CIL (ECIL) may well not continue and other resources should have been analyzed.

The Staff found the transmission analysis to be acceptable, but recommended that the requirements be updated for future IRPs.

The ALJ found that the transmission analysis was minimally compliant with the IRP Filing Requirements, which mandate that the utility provide information about potential transmission options that could increase CIL or facilitate PPAs for energy and capacity from outside the zone. The ALJ noted that DTE Electric did not present the information regarding the Fermi option in its original filing, but did, later, present it in the record. PFD, p. 173.

However, noting that Section 6t(5)(h) requires that the IRP provide an “analysis of potential new or upgraded electric transmission options for the electric utility,” the ALJ concluded that DTE Electric’s IRP does not comply with Section 6t(5)(h) because it never evaluates any option involving a PPA from outside Zone 7, and provides no evaluation of changes to the CIL or the potential for importing capacity or energy from outside of MISO Zone 7. PFD, p. 173. She further found that the IRP fails to comply with the CON order, in which the Commission stated that it:

expects a far more robust analysis of transmission opportunities that might defer, displace, or optimize the amount, type, and location of additional generation based on up-to-date information about current and expected transmission system conditions and import/export capabilities. To ensure alternatives are fully considered in future IRP proceedings, and the system is optimized from a cost and reliability standpoint, the Commission also expects DTE to work closely and collaboratively with ITC and other transmission owners to explore transmission solutions and to work toward integrating the company’s distribution planning efforts with resource planning.

CON order, pp. 115-116. The ALJ found DTE Electric’s arguments about the retention of the current CIL to be unconvincing, concluding that MISO projections should have triggered the

company to undertake an analysis of potential imports. PFD, p. 174. The ALJ recommended that future IRPs “should be required to undertake a transmission sensitivity analysis to assess potential plans that include increased and decreased CILs as well as potential imports from MISO and other areas.” PFD, p. 175.¹¹

In exceptions, the Staff maintains that the company complied with Section 6t(5)(h), the MIRPP, and the IRP Filing Requirements in its transmission analysis. The Staff states,

MISO is conducting a more thorough transmission analysis, though the outcome of that analysis is subject to confidentiality provisions regarding CEII [critical energy infrastructure information], and a stakeholder process has been initiated as a Statewide Energy Assessment (SEA) recommendation with utility participants including DTE Electric Company. Staff, therefore, takes exception to the ALJ’s conclusion that the transmission analysis conducted by the Company was incomplete, considering the circumstances of this case.

Staff’s exceptions, p. 14. The Staff argues that the ALJ erred in finding that an analysis of potential imports from outside of Zone 7 was required. The Staff contends that the language of Section 6t(5)(h) and (j) requires knowing where the transmission ties are that are required to support the generation needed to serve load, and that MISO is best-situated to provide such an analysis. The Staff contends that it is not reasonable to expect the utility to know “whether and which of the external resources are available and deliverable to meet Michigan Zone 7 needs . . . [and] for a regulated utility to be responsible to solicit a response from every power provider across the country to determine” availability and cost, in consultation with the transmission owner.

¹¹ In a related issue, Energy Michigan provided a proposal for addressing the ECIL by revising the MISO Module E-1 tariff. 7 Tr 2954-2962. The Staff argued that the issue was beyond the scope of this IRP proceeding. The ALJ recommended that the Commission consider Energy Michigan’s proposal “as part of its examination of improvements to resource adequacy requirements as outlined in the SEA [Statewide Energy Assessment, September 11, 2019 order in Case No. U-20464, Docket Entry no. 63].” PFD, p. 179. No exceptions were filed. In the various SEA-related efforts, the Commission will be considering the proposals made by stakeholders.

Staff's exceptions, pp. 15-16. The Staff asserts that DTE Electric provided an adequate transmission analysis in the IRP.

The Staff also disagrees that DTE Electric should have included an analysis of ITC's proposal to install an SVC at Fermi as part of the transmission analysis. The Staff notes that the company changed the operational parameters at Fermi which resolved the reliability concern without that SVC installation. 7 Tr 2247. The Staff argues that the operational change was the least cost method for dealing with the issue, and that the proper place to discuss the CIL is the stakeholder processes that are attached to the recommendations in the SEA, pp. 192-193. The Staff reiterates that a transmission solution must be tied to a generation component. The Staff also posits that it is up to MISO to produce a long-term CIL analysis.

In its exceptions, DTE Electric contends that it "inquired of ITC if it would analyze transmission options to increase CIL. ITC chose not to do so, and in fact only provided its analysis of the CIL after a repeated request from DTE Electric at a later meeting. . . . DTE Electric is not equipped to provide the type of analysis the ALJ requests without the cooperation of ITC." DTE Electric's exceptions, p. 38. DTE Electric further argues that the ALJ erred in finding that the company should have included analysis of the SVC proposal and failure to do so renders the IRP noncompliant with Section 6t(5)(h). The company notes that that statute requires no specific analysis of any particular transmission solution. The company argues that the Zone 7 CIL was in fact analyzed by ITC through utilization of a proxy method to look at the effect of both the SVC proposal and the voltage change at Fermi. 6 Tr 1467-1475, 7 Tr 3350. DTE Electric asserts that it simply agreed with the transmission owner's recommendation to use the proxy method; and that once MISO selected DTE Electric's transformer solution, the planned SVC was no longer necessary. 7 Tr 2246-2247. The company notes that the Staff found that the IRP Filing

Requirements were satisfied. 7 Tr 3348-3353. DTE Electric contends that the future is particularly uncertain at this time, and that an increase in transmission into Zone 7 will not necessarily translate into a decrease in the LCR or in the amount of resources MISO will require to be located in the zone. 4 Tr 805-806.

In reply, ITC states that the ALJ “correctly found that the Company did not adequately engage in meaningful collaboration on its [IRP] regarding transmission options.” ITC’s replies to exceptions, p. 1. ITC states that it has not been able to find any factual basis for the utility’s assertion that it asked for an analysis of options to increase the CIL, and that “they are disingenuous mischaracterizations of the interactions that took place.” *Id.*, p. 2. ITC contends that it was not able to provide input on transmission options that would have informed the overall IRP. ITC advocates collaboration and asserts that if IRPs are based solely on resources that are utility-owned, then Michigan will not enjoy the benefits of comprehensive resource planning. ITC disagrees with the Staff’s assertion that the ALJ has placed specific requirements on the analysis, and argues that transmission options and the solutions offered by broader grid resources should be considered.

Energy Michigan objects to the Staff’s assertion that parties should not have commented on the CIL/ECIL issue in this proceeding, and urges the Commission to support the ALJ’s recommendations on this issue.

The Attorney General contends that DTE Electric did not comply with the statute’s requirement for an analysis of new or upgraded electric transmission options, or with the dictates of the CON order. The Attorney General objects to the assumptions that led the company to provide no evaluation of the potential for importing capacity, and argues that the SVC was a potential option that should have been explored.

ABATE urges the Commission to reject the Staff's exception. Pointing to Energy Michigan's analysis of the MISO tariff and the Staff's seeming desire to punt this issue to the SEA workgroups, ABATE argues that Section 6t(5)(h) and (j) require that the applicant provide an analysis of a transmission solution that represents a viable option, as long as there is generation at the other end. ABATE states that the Commission should require that the "capacity import and export limits included in future IRPs reflect the most current and planned system topology." ABATE's replies to exceptions, p. 15.

In their reply, MEC/NRDC/SC contend that DTE Electric's transmission analysis failed to meet the statutory or the order-driven requirements set by the Legislature and the Commission. MEC/NRDC/SC note that the record shows that the company never asked ITC to evaluate alternative options to increase the CIL, including the SVC proposal made by ITC. MEC/NRDC/SC point out the testimony of both an ITC and a DTE Electric witness confirming that ITC was not asked to evaluate the SVC proposal or other proposals to increase the CIL. 6 Tr 1532; 7 Tr 2264-2265. While MEC/NRDC/SC acknowledge that the statute does not require a specific analysis of any particular transmission solution, it does require an analysis of "transmission options," noting the plural usage. MEC/NRDC/SC argues,

The ITC study that DTE requested found increases in the CIL of varying levels would result for the 2023 planning year from reducing the voltage criteria at Fermi, depending on the level of solar build-out. Through its own study of its SVC proposal, ITC determined that option could provide an initial positive impact on capacity import by solving the voltage issue, but then also an incremental additional increase in CIL by adding extra MVARs [mega volt amps (reactive)] of voltage support. So based on the testimony and analyses, the effect of the two proposals were not the same, and DTE's assertion is not supported by the record.

MEC/NRDC/SC's replies to exceptions, p. 61 (notes omitted), citing Exhibit A-39, p. 4, and 7 Tr 2257-2258. MEC/NRDC/SC note the ITC testimony indicating that the collaboration with DTE Electric was never meaningful. 7 Tr 2272-2274. MEC/NRDC/SC contend that DTE Electric

never investigated, evaluated, or pursued any option to import lower-cost power from outside of Zone 7. 3 Tr 360; 4 Tr 865-867; Exhibit MEC-80. MEC/NRDC/SC also note that the company has never disputed ITC's projections showing substantial Zone 7 CIL increases. 4 Tr 875-877.

MEC/NRDC/SC find the Staff's exceptions difficult to respond to, and offer that the record demonstrates that external resources are abundant and cheaper than resources in Zone 7. 7 Tr 2484-2498, 2811-2819; Exhibit MEC-77. MEC/NRDC/SC assert that the Staff fails to discuss the testimony and other evidence. While noting that the Commission has emphasized the importance of import capability in meeting MISO resource adequacy requirements in the SEA, p. 181, MEC/NRDC/SC still urge the Commission not to punt this issue to a stakeholder process and to direct the company to comply with the statutory and CON order requirements. If the Commission chooses to recommend changes, MEC/NRDC/SC request the Commission to require DTE Electric to re-conduct the transmission and import analysis.

The Commission finds that DTE Electric failed to support its decision to ignore resources available from outside of Zone 7. As with the starting point discussion, the Commission observes that an IRP that is burdened with predetermined constraints and outcomes cannot comply with the dictates of Section 6t(5), the MIRPP, or the IRP Filing Requirements, because the point of the exercise is to identify the optimal way forward. Failure to consider all resource options, including those that exist outside Zone 7, violates the dictates of Section 6t(5)(h), (j), and (k). However, the Commission finds that this failure cannot be remedied in the instant docket. The Attorney General has correctly described the situation – the company has complied with the letter of the law in that it has provided an “analysis of potential new or upgraded electric transmission options,” but has failed to comply with the spirit of that language or the language of the CON order, both of which contemplate a much more robust analysis than the one provided here. As such, DTE Electric's

cursory review of transmission options may be adequate to ensure minimal compliance with the statute's requirement to consider transmission options in this case. The Commission further finds that information included in the record herein indicates that, in the very near future, an examination of potential ways to increase the CIL will become a necessary component of any IRP, and the Commission directs DTE Electric to include such an examination in its next IRP filing. The company will be required to work with transmission owner(s) in a way which produces "potential transmission options that could impact the utility's IRP by: (1) increasing import or export capability; (2) facilitating power purchase agreements or sales of energy and capacity both within or outside the planning zone from neighboring RTOs," and "up-to-date information about current and expected transmission system conditions and import/export capabilities." IRP Filing Requirements, p. 18; CON order, pp. 115-116. The next transmission analysis shall provide the Commission with an examination of the full suite of options, including renewable energy imports, transmission limits and transmission growth opportunities, and ways to optimize the utility's portfolio to reduce risk and improve cost-effectiveness.

I. Environmental Requirements (MCL 460.6t(5)(m))

Soulardarity criticized DTE Electric's environmental analysis for failure to describe plans for reducing SO₂ emissions and ozone formation in non-attainment areas. MEC/NRDC/SC also criticized the analysis for failure to include significant environmental costs after 2025 (particularly for retired units), and for underestimating the amount of PM emissions over the course of the plan.

The ALJ found that DTE Electric’s IRP environmental analysis reasonably complies with Section 6t(5)(m). PFD, p. 180. No exceptions were filed. The Commission agrees with the ALJ’s assessment and adopts her findings and recommendations.¹²

J. Rate Impacts (MCL 460.6t(5)(1))

DTE Electric presented an analysis of the rate impacts of the defined PCA, Pathway C of the flexible PCA, and (pursuant to the mandates of the CON order) the revenue requirements associated with the BWEC and the Tier 2 coal plant retirements. Exhibits A-8, A-9, and A-45.

MEC/NRDC/SC argued that the analysis does not comply with the requirements of Section 6t(5)(1) or with the CON order. In particular, MEC/NRDC/SC noted that, since the IRP does not contain the costs of all of the starting point resources and does not include the fixed O&M and ongoing capital expense for existing generation units (as well as other costs such as depreciation), the rate impacts cannot possibly be accurate. 3 Tr 608-610; 2 Tr 289. MEC/NRDC/SC observed that there was also no analysis of how securitization might be used in the context of rate impacts.

The ALJ found that DTE Electric’s rate impacts analysis does not comply with Section 6t(5)(1) or the CON order. PFD, pp. 182-183. She agreed with MEC/NRDC/SC that the inclusion of zero cost resources, as well as the exclusion of environmental compliance costs, capital costs, and fixed O&M costs, defeats the analysis “such that the actual rate impacts of the IRP cannot be determined here.” PFD, p. 182. She further opined that DTE Electric failed to include the analysis discussed in the CON order, p. 120.

In exceptions, DTE Electric argues that it complied with the statute and the CON order by providing “a delta analysis calculating the rate impact based on the projected difference between

¹² The parties’ arguments related to public health impacts and unit retirements are addressed above, section C.2.d.

the revenue requirement underlying existing rates and the fixed portion of the Plan, utilizing the most expensive of the 4 PCAs associated with the flexible portion of the Plan.” DTE Electric’s exceptions, p. 43; 2 Tr 287-290. The company posits that a customer can easily figure out the impact on their bill by multiplying their usage by the amount shown in Exhibit A-45. DTE Electric explains that certain new resources were shown at zero cost because the company provided a delta analysis, meaning that anything that was already reflected across all four PCAs was entered at zero cost, so that only the delta is left. 3 Tr 509-511, 516. The company states that this is why the vast majority of resources were valued at zero cost, and, had all the costs been included, the delta would have been the same. The company contends that this presents the straightforward analysis sought by the CON order.

DTE Electric further argues that it should not be required to present a cost of service study (COSS) as MEC/NRDC/SC had argued. The company asserts that it would have been required to provide 45 COSSs, which is unnecessary and prohibitive. The company further asserts that it would not have the detailed inputs necessary to a COSS for any but the most recent full year. DTE Electric contends that the Commission should find that the company complied with the statute by providing a delta analysis between current rates and the rates associated with the most expensive PCA.

DTE Electric also argues that a securitization analysis regarding the remaining book value of the Tier 2 plants is not required under the statute or the CON order. The company maintains that it was not actually directed to provide such an analysis in the CON order, but that the Commission merely expressed, in a discussion of the IRP filing, that it was “interested in understanding the impact to rates if some or all of the unrecovered book value associated with the coal plant retirements were removed from rate base and addressed through securitization.” CON order, p.

120. DTE Electric notes that the Commission did not say “shall provide” or use other prescriptive language; and claims that, in any case, it filed such an analysis on April 25, 2019, in the Case No. U-18419 docket (the CON docket). That document is a BWEC Interim Status Report, and contains, at pp. 18-20, “an analysis of the rate (i.e., customer) impact if the unrecovered book value associated with the Tier 2 coal plant retirements were removed from rate base and recovered through securitization, rather than recovered through traditional depreciation. The Tier 2 plants include River Rouge, St. Clair, and Trenton Channel power plants.” Case No. U-18419, Docket Entry no. 466, p. 18.

In reply, GLREA contends that DTE Electric’s delta analysis obscured the total rate impact of the IRP, and the Commission should require the rate impact to show the total impact and not the relative impact.

In their reply, MEC/NRDC/SC contend that DTE Electric failed to provide the complete picture of rate impacts for the periods covered by the IRP because it excludes significant known costs and 90% of new planned resources. MEC/NRDC/SC contend that the costs associated with every new resource addition during the period covered by the IRP should be reflected in the rate impact analysis – that all of those costs should appear in the delta analysis – because an incremental analysis of the revenue requirement does not show the full rate impact. 2 Tr 298. MEC/NRDC/SC recommend that the COSS requirement be adopted in order to translate revenue requirements into rate impacts, and note that the ALJ did not do so directly. MEC/NRDC/SC also argue that the securitization analysis was required by the CON order, and the one provided in the CON docket was not available on the record in this case and thus bypassed discovery and cross-examination or other analysis.

The Commission acknowledges that there are some distinctions between what is produced in IRP modeling and what is produced in ratemaking orders. These inherent differences are compounded by DTE Electric's decision to include a range of non-approved and non-optimized resources at zero cost, a decision that results in the model intentionally excluding many of the cost elements that exist in rates. However, certain basic principles shall apply to the rate impacts analysis. One of those is that the cost of any new supply-side or demand-side resource that will be funded by ratepayers during the planning period and that does not appear in the utility's current revenue requirement should be included in the analysis, because that represents a change (a delta) from current rates going forward. The Commission finds that the starting point for the rate impact analysis shall be currently-approved rates. From there, the analysis should add in the cost of new proposed resources, and should capture costs associated with changes to existing approved assets in existing rates. The Commission does not find that a new COSS is necessary for this exercise; but, starting with the currently-approved COSS, the utility should be able to show the estimated overall revenue requirement percentage increase by class. Thus, the Commission recommends that DTE Electric revise the IRP to provide a rate impact analysis that reflects the decisions in this order. With respect to securitization, the Commission notes that the BWEC Interim Status Report was not part of the record in this proceeding, and while the Commission is aware of filings made in other dockets, other parties to the instant proceeding may not be. It is unreasonable to expect other parties to track every other case where relevant information might be filed. And as previously discussed, Section 6t requires a contested proceeding.

K. Michigan Workforce (MCL 460.6t(8)(b))

The ALJ stated that there was no serious dispute that DTE Electric intends to use a Michigan workforce based on the record, and recommended that the Commission find that the company

complied with Section 6t(8)(b). PFD, p. 183. No exceptions were filed, and the Commission adopts the ALJ's findings and recommendations.

L. Cost Approvals (MCL 460.6t(11))

The ALJ recommended that the IRP be rejected. She also recommended that the requested \$0.7 million for the CVR/VVO pilot be approved in the company's pending rate case (Case No. U-20561); that the requested \$24 million in DR costs be approved in the rate case or in a DR reconciliation case; and that the requested \$103 million in EWR capital costs be approved in the next EWR plan case. PFD, p. 183.

In exceptions, the Staff argues that the IRP should not be denied; and recommends preapproval of the EWR, CVR/VVO, and DR costs. The Staff requests that the Commission direct the Staff to review and make recommendations related to EWR programs in plan cases. Staff's exceptions, p. 7; 7 Tr 3217, 3367-3377. The Staff further avers that, according to the three-phase DR framework, the DR capital costs must be approved in an IRP case in order to be recovered in a rate case and annually reconciled, and the Staff recommends cost approval for all but the new DR pilots. 7 Tr 3331-3334; Confidential Exhibit S-8.0.

In its exceptions, DTE Electric argues that all of these requested costs should be preapproved pending the next rate case and EWR review, and the IRP should not be rejected.

The Commission agrees with the ALJ's assessment of whether these costs should be approved, but finds that the approvals may be given in this proceeding. As discussed above, the Commission recommends including the remaining DR costs (other than those associated with the proposals for new DR pilots), as well as the proposed CVR/VVO and EWR costs, as part of its revised IRP, consistent with the discussion of each of these IRP elements in this order.

M. Other Issues

1. Community and Stakeholder Engagement

Soulardarity and GLREA criticized DTE Electric's public outreach efforts as inadequate.

Soulardarity pointed out that the open houses were all held in only one county, childcare was not available, and translation services were limited. GLREA advocated a more grass-roots approach.

The ALJ agreed with the Staff that DTE Electric's outreach efforts complied with the Commission's requirements, and recommended that, in future, outreach begin sooner so that community concerns are actually incorporated into the filed IRP. PFD, p. 185.

In exceptions, Soulardarity argues that DTE Electric failed to comply with the IRP Filing Requirements, p. 6, with respect to stakeholder engagement and public outreach. Soulardarity contends that even though DTE Electric hosted more events than are required, the events were legally insufficient because the information provided was too general. *See*, Exhibits SOU-28 through SOU-53. Soulardarity alleges that the utility could not point to any component of the IRP that was modified as a result of public input. Soulardarity notes that even though DTE Electric operates in 12 counties all of its public events were held in areas of Wayne County. Soulardarity maintains that the utility should be required to show a concrete way in which the modeling scenarios were impacted by community input. Soulardarity further argues that, in violation of the IRP Filing Requirements, pp. 20-21, DTE Electric never explained its planning principles and never chose the most reasonable and prudent PCA.

In reply, Ann Arbor indicates its agreement with Soulardarity's exceptions. Ann Arbor maintains that DTE Electric failed to incorporate the concerns of the community, and biased the IRP in favor of the building of another large, gas-fired generation plant.

In its reply, DTE Electric contends that its planning principles were reasonable. The company notes that they were qualitatively, not quantitatively, analyzed. 3 Tr 461-464.

The Commission agrees with the Staff and the ALJ and finds that DTE Electric's community engagement efforts complied with the statutory requirements, as well as the requirements reflected in the MIRPP and IRP Filing Requirements. The IRP Filing Requirements, pp. 3-4, recommend two stakeholder engagement workshops, and, if those workshops are not open to the public, then two additional public meetings. DTE Electric held three public open houses and four technical workshops, and the information provided at those events was sufficient to apprise participants of the IRP process and the types of decisions involved, as well as how to comment. The open houses were well advertised and the company received community feedback via written and electronic comments. 2 Tr 68-71. DTE Electric states that the technical conferences resulted in the running of four additional sensitivities, and the comments from both the conferences and open houses informed the company's "determination of components in the PCA, including the higher levels of renewables and EWR." 2 Tr 71. Community engagement is an extremely important aspect of every IRP, and the Commission finds that, in its next IRP filing, DTE Electric should consider additional opportunities to engage customers throughout its service territory.

2. Reporting Requirements (MCL 460.6t(14))

The Staff proposed that DTE Electric file annual reports using the template provided in Exhibit S-3.0 and a narrative explaining any adjustments to the timing, scope, status, or costs associated with expense approvals for the first three years of the plan. The Staff also requested that the company communicate with the Commission when there is a significant change to the cost, timing, or size of any expected resource addition, in a timely manner.

The ALJ found the Staff's proposals to be reasonable, noting that, while there are existing reporting requirements for EWR, DR, and renewables, consistent reporting on the IRP projects will prove useful and will not be redundant. PFD, p. 186.

In exceptions, DTE Electric contends that the existing reporting requirements for EWR, DR, and renewables are sufficient to keep the Commission apprised of the state of these programs without additional IRP-related reporting. The company also asserts that it cannot apprise the Staff “immediately” of changes to costs or timing, for example, because negotiations are fluid and dynamic and changes occur too frequently. The company argues that the requested reporting is duplicative and overburdensome. 2 Tr 98-99.

In reply, the Staff urges the Commission to adopt holistic annual IRP reporting following the template of Exhibit S-3.0. The Staff contends that this will ensure full transparency and will keep the Commission apprised of the status of approved resource additions and any cost, schedule, or size updates or changes. The Staff notes that the Commission recently recommended the incorporation of these requirements in an IRP. *See*, December 6, 2019 order in Case No. U-20350, pp. 55-57.

The Commission agrees with the ALJ and the Staff and adopts the Staff’s proposed reporting requirements. As noted already herein, the Legislature has provided separate statutory mechanisms to address several of the elements of an IRP, which is intended to be “integrated” and thus present the overarching plan for meeting future requirements. An IRP should be treated as its own entity despite possible overlap, information-wise, with other reporting requirements. As the Staff notes, the IRP reporting will give the integrated view, and will preclude the necessity of trying to understand the full picture of the progress of the plan by looking at the reporting associated with various other dockets.

3. Next Integrated Resource Plan Filing

The Staff proposed that the Commission seek changes to the IRP under the Section 6t(7) process, and that the next IRP be filed in three years. DTE Electric indicated that three years

would be the minimum possible time within which it could produce another IRP. MEC/NRDC/SC argued that the IRP filed in the instant case was too flawed to be addressed within the 60-day timeframe set out in Section 6t(9), and that the IRP should be rejected and another filed in two years.

The ALJ agreed with MEC/NRDC/SC and found that the errors and omissions in the current IRP could not be addressed within the 60-day timeframe. She recommended that the Commission reject the IRP and direct DTE Electric to “refile within 24 to 30 months of the final order in this case.” PFD, p. 188.

In exceptions, the Staff argues that the ALJ’s recommendations regarding denial and refiling ignore the statutory procedure set out in Section 6t(7) and 6t(9). The Staff argues that the Commission may, under Section 6t(7) (300-day order) approve, deny, or recommend changes (the latter to be followed by a 360-day order that approves or denies any revised plan); and that, should the Commission deny a utility’s proposed IRP in either its 300-day or 360-day order, Section 6t(9) affords the utility the option of filing a revised plan within 60 days, to be followed by either a 90- or 150-day order. The Staff urges the Commission to use the statutory process to further refine the IRP and to ramp up EWR; and proposes that a new IRP be submitted in 36 months.

In its exceptions, DTE Electric argues that the ALJ erred in her interpretation of the IRP Filing Requirements and overlooked significant record evidence in deciding to recommend 24 to 30 months. Like the Staff, the company posits that the ALJ’s recommendations do not comport with Section 6t(7) or 6t(9), and contends that the ALJ may not abridge the right of the utility under Section 6t(9) to file a revised IRP within 60 days if it so chooses. DTE Electric contends that the Commission should not require a new IRP in less than five years, as provided under Section 6t(20), but that, in any case, the minimum amount of time in which the utility could produce an

appropriate new filing is three years from a final order in this case. 3 Tr 583-587. DTE Electric discusses the possible necessity of evaluating and selecting new modeling software and then training modelers, and preparation of a new IRP that incorporates the suggestions from the Staff and intervenors in this case. The company posits 28 months as the minimum time for the modeling. The company notes that the Staff agreed to three years, but requests that the Commission grant four or five years, in order to produce a higher quality product and to allow for greater technological developments, as well as policy developments (such as the MI Power Grid initiative), to occur.

In reply, GLREA proposes two years or less, and also proposes that the Commission require changes to this IRP.

ABATE supports the ALJ's recommendation to reject this IRP and require a new filing in 24-30 months that corrects all of the errors and omissions. ABATE contends that this comports with Section 6t(7), as the Commission is authorized to deny an IRP, and to establish a new filing deadline under Section 6t(7) and (3).

MEC/NRDC/SC contend that the ALJ's resolution is consistent with the statutory framework. MEC/NRDC/SC state that the Commission has the authority to deny an IRP under Section 6t(7), (9), and (10). MEC/NRDC/SC argue that, in the event of denial, the Commission must have authority to order a new IRP under Section 6t(3), (20), and (21), because a contrary interpretation would lead to the absurd result of allowing a utility to submit a wholly deficient IRP (which would have to be rejected), and then allowing five years to pass with nothing in place. MEC/NRDC/SC contend that if the Commission "has authority to approve an IRP and immediately order a plan review, it must also have authority to require a utility to submit a new IRP within two years of denial." MEC/NRDC/SC's replies to exceptions, p. 77. MEC/NRDC/SC submit that it is not

possible to issue an RFP, receive responses, and integrate the responses within 30 or 60 days; and that the transmission analysis must also be redone. MEC/NRDC/SC support 24 months for refiling.

The Commission appreciates the fact that identifying, purchasing, and becoming adept with new modeling software is a process that requires careful thought and significant time. The Commission is also aware that this order illustrates for DTE Electric a significant number of elements in the plan that will be done differently the next time around. Lastly, the Commission acknowledges that many of the approvals that DTE Electric thought would be forthcoming via an IRP order will not be made due to the shortcomings in the evidence provided on this record, and will need to be made in another proceeding such as the company's REP proceeding. In light of these considerations, the Commission finds that DTE Electric's next IRP filing shall be made no later than September 1, 2023. This should allow sufficient time to become comfortable with both new modeling software, and with the changed aspects of the modeling and other elements of the IRP as indicated in this order. This date should provide sufficient time to accommodate other changes that will have taken place in the interim, including the resolution of the company's application to amend its REP (to be filed no later than April 1, 2020), the resolution of DTE Electric's next PURPA avoided cost, standard tariff, and capacity need review (to be filed no later than November 13, 2020), and the updating of the MIRPP (which will be commenced by July of 2022 and will conclude in late fall of that year). *See*, MIRPP, p. 2. In light of the inconclusive record related to capacity need in this case, the Commission also finds it appropriate to revisit DTE Electric's projected capacity need in its PURPA review case to be filed in 2020.-

4. Issues with Strategist

Several parties raised concerns about the continued use of Strategist, including the utility. 3 Tr 583-584. The ALJ noted that DTE Electric indicated that it would evaluate new and different modeling tools prior to filing its next IRP in five years. The ALJ recommended that Strategist be replaced before the next IRP, if possible. She noted that the schedule in this matter had to be extended due to the errors in the original filing. She recommended that the Commission convene a short technical conference to discuss and evaluate a better modeling tool for future IRPs. PFD, pp. 188-189.

In exceptions, DTE Electric argues that it should not be directed to replace Strategist or participate in a stakeholder proceeding. The company notes that it has committed to looking at different modeling tools before preparing its next IRP, and seeks to complete that analysis before it commits to eliminating Strategist. 3 Tr 583. The company also argues that a two-day conference would be totally insufficient for evaluating even one potential replacement. DTE Electric asserts that stakeholders, in any case, should not be allowed to dictate what software is used. The company indicates that it will present its findings to the Staff after it has evaluated modeling alternatives, which will include an evaluation of the software discussed by MEC/NRDC/SC in this case. 7 Tr 2578; 3 Tr 584.

In reply, the Staff contends that Strategist is outdated, and notes that its vendor will no longer support the software. The Staff points out that Strategist cannot perform essential hourly chronological dispatch, and does not consider resource ramping – elements that are not workable as the level of intermittent resources increases. The Staff contends that the next IRP should be filed in no less than 36 months in order to give DTE Electric time to acquire and become proficient

with new modeling software. The Staff expresses concern that a date sooner than that will result in the company continuing to use Strategist.

ABATE also points out all of the limitations of Strategist, and the fact that it is no longer supported by the company that owns it. 7 Tr 1923, 1958-1959. ABATE urges the Commission to direct DTE Electric to begin to immediately identify an alternative and make this transition. ABATE also supports the concept of a technical conference to identify better modeling software.

All parties, including DTE Electric, express serious concern with the continued use of Strategist for the company's next IRP, and the Commission shares this concern. The Commission agrees with the ALJ's recommendation and directs DTE Electric to, within 90 days of the date of this order, convene a two-day collaborative with interested parties and stakeholders, to explore alternative modeling tools. While the collaborative may not result in the universal adoption of a new tool for all utilities, the Commission finds that the opportunity for shared information and experience will assist DTE Electric in its efforts to quickly identify a superior tool. DTE Electric shall file a report on the results of the collaborative, including an overview of the alternative tools that were considered, in this docket within 120 days of the date of this order. The Commission also adopts DTE Electric's commitment to meet with the Staff once alternative software has been identified, to discuss and evaluate its use in developing the company's next IRP. Finally, the Commission agrees with DTE Electric's contention that it is the company's decision – as opposed to stakeholders' – as to which modeling software to use. However, the Commission notes that a decision to use a modeling platform that has such material limitations and deficiencies may call into question any plan derived from the use of such a modeling platform, including the reasonableness and prudence of any cost recoveries associated with such a plan.

N. Recommended Changes

In this 300-day order under MCL 460.6t(7), the Commission recommends incorporation of all of the following changes to DTE Electric's IRP filed in this docket:

- Select a single pathway as part of an overall plan;
- Supplement the record with the RFP and responses that are required by Section 6t(6);
- Remove all unapproved supply-side resources from the defined PCA and modeling starting point;
- Include EWR levels of 1.75% in 2020, prorated based on the date of the final order in this case, and 2.0% in 2021;
- Revise DR-related tariff language as described herein and remove proposed DR pilots other than the BYOD and EPRI pilots;
- Revise the rate impact analysis to reflect the decisions in this order; and
- Include the reporting requirements proposed by the Staff.

THEREFORE, IT IS ORDERED that:

A. The Commission has reviewed DTE Electric Company's integrated resource plan and recommends changes as set forth in this order.

B. Parties to this proceeding may file comments regarding these recommendations no later than 15 days from the date of this order.

C. DTE Electric Company may submit a revised integrated resource plan, in accordance with MCL 460.6t(7), no later than 30 days from the date of this order.

D. Within 90 days from the date of this order, DTE Electric Company shall convene a technical conference with interested stakeholders for the purpose of identifying and evaluating alternative modeling software for use in developing integrated resource plans, and shall, within 120 days from the date of this order, file a report on the results of the conference in this docket.

E. DTE Electric Company shall file an application for an amended renewable energy plan in Case No. U-18232 no later than April 1, 2020.

F. DTE Electric Company shall file an application for review of its compliance with the Public Utility Regulatory Policies Act of 1978, 16 USC 824a-3, no later than November 13, 2020.

G. DTE Electric Company shall file an application for an integrated resource plan no later than September 1, 2023.

The Commission reserves jurisdiction and may issue further orders as necessary.

MICHIGAN PUBLIC SERVICE COMMISSION

Sally A. Talberg, Chairman

Daniel C. Scripps, Commissioner

Tremaine L. Phillips, Commissioner

By its action of February 20, 2020.

Lisa Felice, Executive Secretary

PROOF OF SERVICE

STATE OF MICHIGAN)

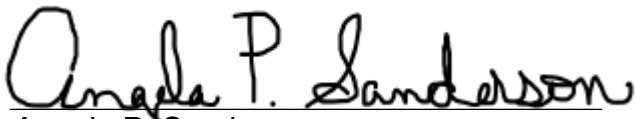
Case No. U-20471 *et al.*

County of Ingham)

Brianna Brown being duly sworn, deposes and says that on February 20, 2020 A.D. she electronically notified the attached list of this **Commission Order via e-mail transmission**, to the persons as shown on the attached service list (Listserv Distribution List).


Brianna Brown

Subscribed and sworn to before me
this 20th day of February 2020.



Angela P. Sanderson
Notary Public, Shiawassee County, Michigan
As acting in Eaton County
My Commission Expires: May 21, 2024

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Alpena Power

Liberty Power

Wabash Valley Power

Wolverine Power

Lowell S.

Realgy Energy Services

Volunteer Energy Services

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