



# STAFF DEMAND RESPONSE REGULATORY FRAMEWORK RECOMMENDATIONS

Case No. U-18369

August 24, 2017

MPSC Staff

## Background and Summary

On May 11, 2017, the Michigan Public Service Commission (MPSC or Commission) directed its Staff to convene a workgroup of stakeholders to discuss the regulatory framework for demand response (DR). Staff was also directed to provide the Commission with a framework proposal by August 31<sup>st</sup>.

Public Acts 341 and 342 of 2016, which went into effect on April 20, 2017, established a new process for examining the long-term energy outlook for Michigan. The new legislation requires utilities to create and file integrated resource plans (IRP) with the Commission for approval, and those plans are required to consider demand-side resources such as DR. Additionally, PA 342 contains an overhaul of laws regarding energy waste reduction (EWR), which includes certain provisions related to DR.

Currently, DR appears in general rate cases, annual resource adequacy filings by the utilities, monthly and annual DR reporting for Michigan's largest utilities in MPSC Cases U-17936 and U-18013, and in the future will be incorporated in IRPs and EWR cases. Each of these regulatory proceedings take place over their own unique time periods, which often overlap, and may also look retroactively or proactively along different time horizons.

Not only does the timing of regulatory proceedings regarding DR misalign, but the rapid pace of change in technology necessitates a more agile regulatory environment. The Commission recognized this in their order directing this proposal, "In contrast to supply-side options, DR is a resource that can be installed and deployed relatively quickly and that can be used as both a 'bridge' resource, while new generation is constructed, and as a means of forestalling, or even eliminating, the need for some new capacity." (p. 2).

DR resources also rely a great deal on factors outside of utility control, namely customer participation. The utility can control when economic DR events are called and design rates in a variety of fashions, but ultimately, the customer is in control of the overall size and impact of the resource. In order for utilities and customers to take advantage of advances in DR and arrive at a low-cost energy future for Michigan, the Commission must consider how to accommodate such a dynamic resource using the regulatory tools available to them.

To assist the Commission in its examination of the regulatory treatment of DR, Staff held four workgroup meetings with stakeholders from Michigan utilities, alternative energy suppliers, customer groups, and other energy policy advocates. Topics discussed at those meetings included Staff's and other stakeholder's initial framework proposal options, a thorough analysis of the DR provisions in PA 341 and 342, DR issues as they related to large customers and alternative suppliers, and how DR may be considered along with established EWR regulatory processes.

Through these robust discussions, Staff developed three distinct framework options for the Commission to consider, and recommends one such option as the best path for the DR regulatory environment going forward. Specifically, Staff recommends the adoption of the "Three Phase Plan" proposal, which utilizes IRP proceedings for long-term planning, general rate cases for cost recovery, and a reconciliation mechanism to align the two. After discussion of the three options presented to the Commission, Staff also makes other recommendations regarding specific concerns raised by the stakeholder group.

The recommendations in this proposal are Staff's alone, and should not be considered to be endorsed by individual members of the working group unless they claim otherwise. Staff greatly appreciates the contributions of the stakeholder group to this process.

## Framework Options

### Option 1: Three Phase Plan

#### Phase One: IRP

Long-term DR plans are established in IRP cases. Program costs, benefits (avoided resource cost), and results (MW and MWh) will be evaluated alongside traditional supply-side resources in IRPs. All investments and projects in an IRP, including investments in DR resources, will be included in future rate cases as pre-approved, recoverable costs, as long as the utility begins each project within three years after it was approved in the initial plan.

Using the IRP process as a method to evaluate the cost-effectiveness of DR relieves the burden of such a review in general rate cases, provided the costs do not exceed the pre-approved costs in the IRP. In fact, the IRP process established in PA 341 expressly requires an examination of whether DR is cost effective<sup>1</sup>. Establishing DR plans in the IRP also has the added benefit of incorporating the relatively short-term and variable resource into a comprehensive plan for utilities to meet customer demand.

FOR EXAMPLE: a utility includes an interruptible load program in their IRP resource mix that scales up from 0 to 200 MW over 5 years. The model used in the IRP selects the interruptible resource because it is cheaper than building new generation to meet load growth, and the Commission approves the IRP. The costs associated with the interruptible program would then be considered already approved and available for recovery in the utility's rates, which is determined in a general rate case.

#### Phase Two: Rate Case

DR plans and program costs will not be addressed in general rate cases, beyond ensuring that the costs proposed for recovery align with those approved in the IRP. Allocation of those costs will be considered in the rate case just like any other in the cost of service study. The IRP-approved DR costs would enter into rates at the conclusion of the general rate case.

Changes to rate designs for DR pricing programs, pilots, and any other tariff changes may also be proposed and approved in rate cases. New DR programs not included in the utility's previous IRP, such as a pilot that graduates into a fully available program, may be proposed and approved in rate cases on the condition that they must be included in the next IRP. As such, the approval for new DR programs not already included in an IRP must be shown to be cost-effective per the results of the previous IRP. Alternatively, the utility may file an amendment to the previously approved IRP, which is considered on a shorter time frame than full IRPs<sup>2</sup>.

FOR EXAMPLE: The utility includes \$2M of DR program costs to implement a 30MW DR resource during the test year in a general rate case that corresponds with the same year, cost, and resource size in the IRP. Because the DR resource and its costs were already approved in the IRP, the costs are included in rates. The utility also proposes a new DR program that will cost \$500k and achieve 10MW in demand

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<sup>1</sup> MCL 460.6t(8)a(vii)

<sup>2</sup> MCL 460.6t(19)

reduction. The Commission approves the new program because it is cheaper than other IRP-approved resources and requires the utility to include it in the next IRP.

#### Phase Three: Reconciliation

After costs are approved in the IRP and entered into rates in the general rate case, then the next phase is a reconciliation case that will occur annually. Additionally, the reconciliation case will match the timing of the utility's EWR annual reconciliation case, so that Staff and intervenors can easily audit any overlap between DR and EWR costs and benefits.

The reconciliation will compare the amount of the utility's DR resource available with what was offered in the most recent IRP, as well as the historic spending on DR compared to the resource cost approved in the IRP and entered into rates through the rate case<sup>3</sup>. This process will align the utility's costs in rates with their approved long-term plans.

Costs reconciled in this step may result in a different amount than what the utility recovered through rates approved in the previous general rate case. The level of adjusted recoverable cost would be determined in the reconciliation case and would then be included as an adjustment to the IRP-approved level of DR spending in the utility's next general rate case.

If the utility does not file a new rate case before the next annual reconciliation, then the adjustment would be carried over to the new reconciliation case. Because the adjustment would be already approved in the reconciliation case, it would need no further analysis or comment in the following rate case.

The next rate case would then include both the reconciliation adjustment to DR costs approved in the previous general rate case and the utility's new proposed DR spending to keep up with the IRP. Again, both the adjustment and the new DR costs for IRP-approved programs have already been approved, so no further analysis is required in the general rate case.

MCL 460.6t(17) offers guidance for the reconciliation phase of this proposal. Specifically, it states that if the Commission finds them prudent, then they may approve costs in excess of those approved in an IRP. Also, the Commission may review whether it is reasonable to complete a project if the Commission believes that project is no longer commercially viable. In an instance in which the Commission deems a program to be discontinued, per MCL 460.6t(17), costs already incurred on the project may not be disallowed, unless they were a result of fraud, concealment, gross mismanagement, or lack of quality control.

A reconciliation process will ensure that the utility is following the path approved in its IRP, and that cost recovery for DR resources tracks with their benefits. IRPs will occur at 5 year intervals, which may be sufficient for evaluating supply-side resources that take years to build, but demand-side resources can quickly scale up and may vary from year to year, which necessitates the annual reconciliation.

The adjustment may be negative if the utility under-spends on the DR program or doesn't achieve the results promised in the IRP/rate case. Alternatively, the adjustment may be positive if additional DR benefits are realized (i.e. more MW of reduction or higher customer participation), but required additional investment above what was recovered in rates. The size and spending required for a DR

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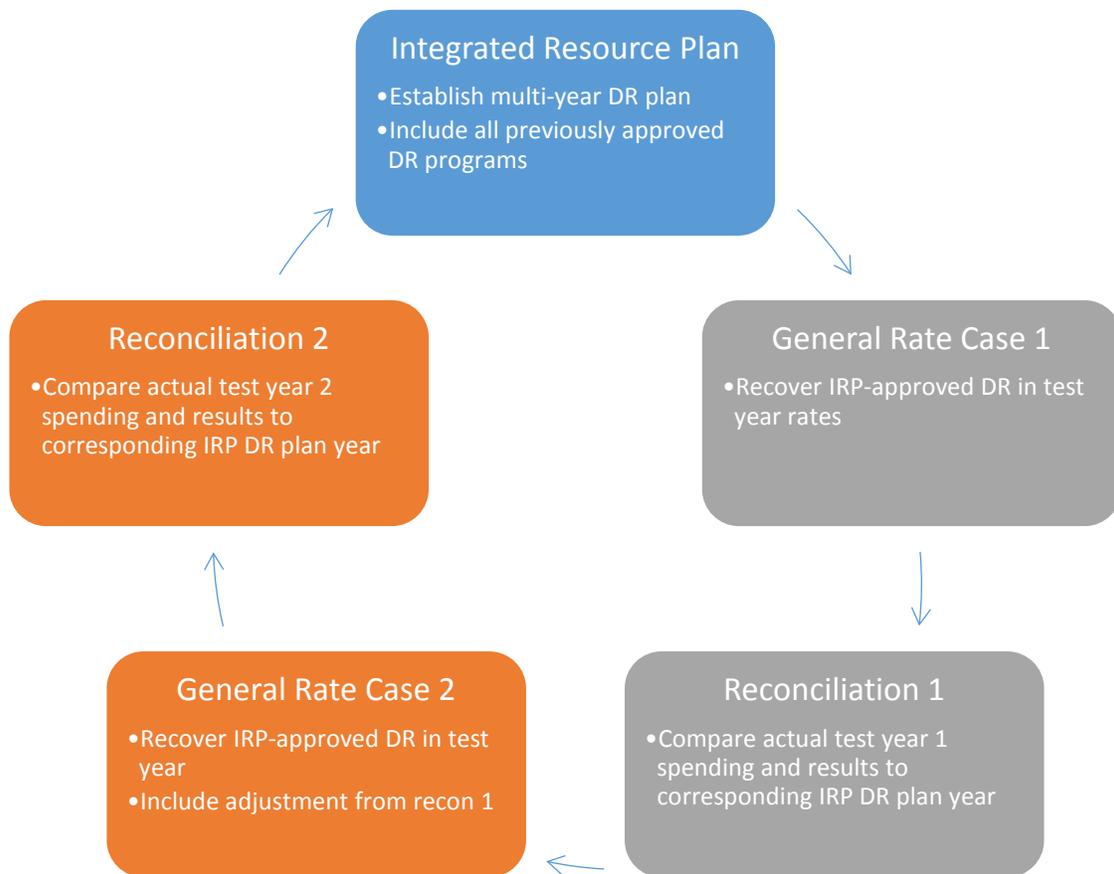
<sup>3</sup> MCL 460.6t(11)

resource is somewhat dependent on forces outside the utility’s control, i.e. customer participation. The bi-directional reconciliation adjustment minimizes risk to the utility if participation is higher than expected by allowing recovery of the costs necessary to accommodate the increase in DR customers. On the other hand, risk to the customer is minimized if the approved program is not as successful as it was predicted to be in the IRP, because the downward reconciliation adjustment would reduce rates in proportion with the shortfall from expectations.

Annual reporting previously required in U-17936 and U-18013 will take place in the annual reconciliations. The data from those established reports will aid in the reconciliation process to match IRP expectations and DR program outcomes.

FOR EXAMPLE: In the (now historic) test year, the utility actually spent \$4.5M on the DR program and achieved a demand reduction resource of 35MW. The reconciliation adjustment would be a positive \$0.5M, and would be included in the utility’s next general rate case.

### Three Phase Plan Diagram and Example



IRP DR Plan			Rate Cases				Reconciliations	
Year	DR MW Total	Total Cost	Historic Rates	IRP Costs	Recon Adjustment	Test Year Rates	Actual Spending	Adjustment
2020	50	\$ 5	\$ -	\$ 5	\$ -	\$ 5.0	\$ 4.0	\$ (1.0)
2021	100	10	5.0	5	(1.0)	9.0	4.5	(0.5)
2022	150	15	9.0	5	(0.5)	13.5	6	1.0
2023	200	20	13.5	5	1.0	19.5	5.5	0.5
2024	250	25	19.5	5	0.5	25.0	5	-

### Option 2: Energy Waste Reduction Integration

This proposal option involves removing demand response cost/benefit and program design analysis from general rate cases, DR reporting cases, and annual resource adequacy filings, and instead include it in EWR plan and reconciliation cases.

Newly proposed DR programs, existing DR resources, and pilots will be included in biennial EWR plan review cases. Allocation of costs to customers and rate design to recover the allocated costs will occur in the plan case. Like EWR resources, DR programs must pass the utility cost test for approval in EWR plan cases.

Public Act 342 includes various limits on the contribution of DR benefits to the utility’s EWR standard<sup>4</sup>, but does not entirely bifurcate DR and EWR benefits. However, Section 89(1) expressly disallows DR program costs from being recoverable as EWR costs<sup>5</sup>. Demand response is included in the definition of energy waste reduction in PA 342<sup>6</sup>, but its costs are specifically excluded.

Under this proposal, DR program costs and benefits will be included in EWR plans and reconciliations alongside EWR programs, with an explicit, separate accounting of benefits and costs associated with each type of program, and how they may be used to reach the EWR standard. EWR costs will continue to be recovered through the EWR surcharge. Because DR costs may not be recovered as EWR program costs, a new DR surcharge will be created to recover DR program costs.

The new DR surcharge will mimic the EWR surcharge as described in PA 342<sup>7</sup>, where residential customers will receive a per kWh charge and other customers a per-meter charge. The same section of PA 342 states that EWR charges cannot be itemized on customer bills after January 1, 2021, and the DR surcharge would follow that precedent.

<sup>4</sup> MCL 460.1077(2) and MCL 460.1077(7)

<sup>5</sup> MCL 460.1089(1)

<sup>6</sup> MCL 460.1005(f) and MCL 460.1007(g)

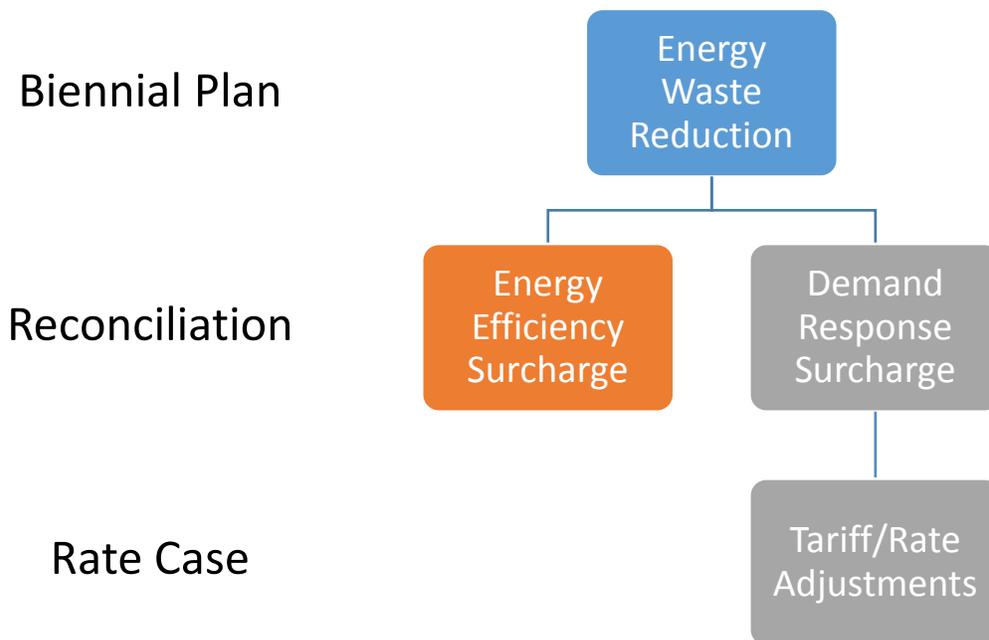
<sup>7</sup> MCL 460.1089(2)

In order to consider all DR program costs in this proposal, existing DR programs costs will need to be removed from the utility’s cost of service study. New programs will be relatively easy to incorporate into EWR proceedings, but legacy programs that have already been approved and embedded in utility rates will be difficult to separate.

Under this approach, not every aspect of DR will be able to be removed from general rate cases. Specific changes to rates, such as new dynamic pricing schemes or changes to discounts or payments on interruptible tariffs, will still need to be included in general rate cases where rate design occurs. Tariff language changes, such as eligibility requirements or critical event limits, may still take place in EWR plan or reconciliation cases, as long as they do not result in a change in the cost to serve other customers. This is the same approach taken in ex parte cases for tariff changes.

Annual reporting previously required in U-17936 and U-18013 will take place alongside EWR annual reports. The report should cover the entire cooling season in one calendar year (June-September, or the Company-defined summer billing months). The reports will be submitted in the docket of the Company’s most recent EWR plan case.

### EWR Integration Diagram



### Option 3: Business-as-usual

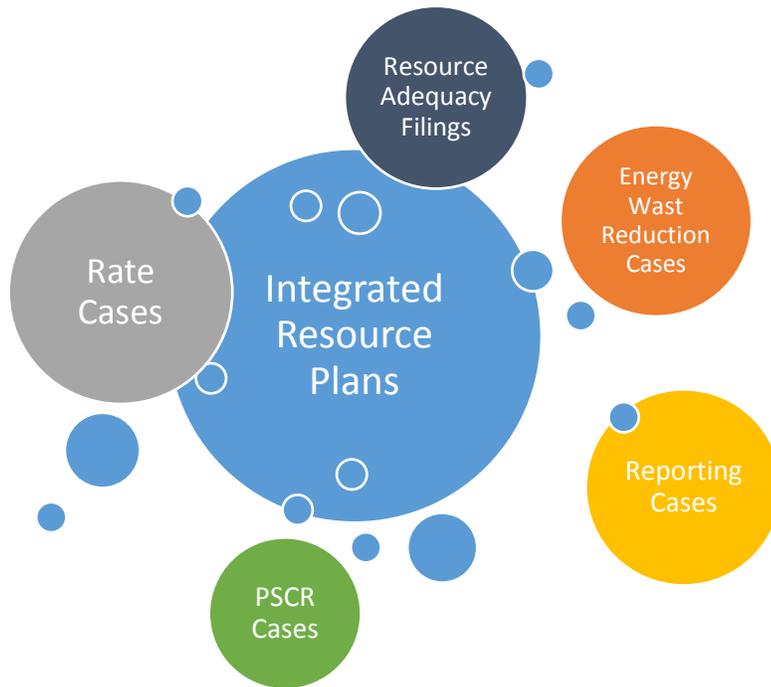
This business-as-usual (BAU) proposal option reflects what is currently in effect today, without much consideration of the new energy legislation. Under this model, plans for DR will be evaluated in general rate cases (including pilots), where Staff and intervenors will analyze and discuss the merits of investing in DR programs over a future test year period. Should this option be chosen for adoption by the Commission, then Staff recommends that new DR programs may be evaluated by comparing them to supply-side options as established in the utility’s most recent IRP.

While costs approved through the IRP process will enter into utility rates as described in PA 341<sup>8</sup>, there will be no mechanism to evaluate DR resources between IRP filings, which must be filed a minimum of every 5 years<sup>9</sup>.

Cost overlap between DR and EWR will be audited separately in both rate cases and EWR reconciliation cases. Some benefits of DR (such as kWh savings) may be included, per PA 342, in EWR plans and reconciliations. However, the timing of rate cases and EWR cases rarely match, especially considering rate cases generally rely on future test years for ratemaking.

Monthly and annual reporting on DR enrollment, costs, benefits, and other measures will continue independently in Cases U-17396 for DTE Electric and U-18013 for Consumers Energy.

### BAU Diagram



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<sup>8</sup> MCL 460.6t(17)

<sup>9</sup> MCL 460.6t(20)

## Other Recommendations:

In Staff's workgroup meetings, there arose some concerns over the role of alternative energy suppliers in the current and proposed DR framework. Staff recommends that the Commission affirm that alternative energy suppliers may offer DR programs to their customers, and may do so through the use of a curtailment service provider or other 3<sup>rd</sup> party provided that the alternative supplier is ultimately the entity bidding the resource into the wholesale market. Because regulated utilities offer DR programs to only their power supply customers, choice customers will not be able to participate in both a regulated utility DR program and a DR program offered by their energy supplier.

Further, Staff recommends that the Commission affirm that DR programs offered by alternative energy suppliers are free from Commission regulation in regards to program design or cost recovery, but are still subject to review as established through the capacity demonstration process<sup>10</sup>. These affirmations would clarify the Commission's policy regarding alternative energy suppliers' DR programs and lessen any confusion on the issue.

Regarding demand-side resources in the IRP process, Staff recommends that any additional incentive offered to the utility for implementing those resources, such as the financial incentive mechanism or the shared savings mechanism as described in PA 342, be included in the total demand-side resource cost. For example, if the utility is authorized to recover an amount above DR program costs because they met the requirements of the shared savings mechanism, the total recovery amount (DR program costs plus incentive for the utility) should be used as the DR resource cost in the utility's IRP. Also, any DR program approved outside of an IRP should be required to be included in the utility's following IRP to make certain that the program is cost effective when compared to other resources.

## Conclusion:

Staff recommends that the Commission adopt Option 1: Three Phase Plan, as detailed in this proposal and Staff's other recommendations.

It was Staff's initial intention to attempt to remove DR resource evaluation completely from the various regulatory proceedings in which it appears, in order to ensure that benefits or costs were not double counted across case types and reduce regulatory lag in implementing DR programs. However, given the combination of new legislation regarding DR (IRPs and EWR changes) and the existing regulatory construct (general rate cases), it was impossible to isolate DR completely.

Staff's proposal instead takes advantage of the long-term planning and review inherent in the IRP process, the mid-term technical act of performing cost recovery in rate cases, and the short-term historical review of reconciliation. This process will allow utilities to plan for the future and for prudent cost recovery, while ensuring customers are offered contemporary demand response programs that are cost-effective.

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<sup>10</sup> MCL 460.6w