

## **EXHIBIT 1**

### C. Quanta Technology, LLC Recommendations

In 2018, ENO retained Quanta Technology, LLC (“Quanta”), national experts in, among other things, electric distribution system reliability, to perform an assessment of our 2018 reliability plan, as well as benchmarking of our reliability practices and performance with select high-performing peer utilities, and to provide recommendations for reliability improvement.

Quanta completed its review and written assessment in October 2018 and that report was filed with the Council on October 31, 2018. ENO has been working to incorporate Quanta’s recommendations, to the extent currently feasible, into its 2019 Distribution Reliability Plan. A discussion of the Quanta recommendations and the implementation of those recommendations is set forth below.

Recommendation 6.3.1.1: It is recommended that ENO consider using SAIDI, along with SAIFI as part of the metrics used in the benefit-cost analysis for evaluation and prioritization of reliability improvement projects. Consideration of MAIFIE and CEMIn is also recommended to the extent these indices can be applied with the currently available data gathering technology.

Response: Emphasis on acceleration of Distribution Automation (DA) was driven in large part due to consideration of reducing customer interruption minutes. DA projects have been prioritized to occur as early in the year as possible to provide customers with maximum benefit to reduce the duration of outages by allowing for stepped restoration and better isolation of issues.

MAIFI is not a metric we are capable of using with our current technology. Once GridMod is fully implemented, MAIFI will be more feasible as a metric to include in the reliability analysis.

Recommendation 6.3.1.2: It is recommended that ENO consider accelerating the implementation of a data analytics program, to the extent possible within regulatory requirements. An analytics program will provide the required data for the implementation of advanced distribution planning applications.

Response: Timing of analytics capabilities associated with the Grid Modernization investments has been incorporated to the current project scope of investments such as AMI and OMS/DMS. Deployment of associated analytics related to these investments is currently aligned with deployment timelines. ENO is currently accelerating deployment of AMI and the communication network as discussed in Council Resolution R-18-224.

In the interim, ENO has improved availability of data to the line supervisors through the introduction of PowerBI software for reporting. This tool allows users to visualize and dive into data with greater ease to allow more data driven decision making.

Recommendation 6.3.1.3: It is recommended to consider estimated customer benefits due to outage cost reduction. As discussed in section 5.4.1, other utilities have included this type of analysis (e.g., using the [Interruption Cost Estimator] (“ICE”)) in the benefit-cost evaluation and prioritization of distribution reliability improvement projects/programs, particularly for those that require large investments.

Response: The ICE Calculator is a tool available by Internet designed to estimate the aggregate cost (loss) as seen by the customers due to outages experienced by customers. The calculator uses a preset average value for Electrical rates and customer losses and are State specific (not Utility specific). These values vary based on Residential and Non-Residential classifications and typical metrics that are input by the user of the ICE Calculator. Because the calculator looks at cost to the customer of the outage and residential

customer experience very little cost while non-residential customers experience higher costs, the ICE calculator values non-residential customers more than residential customers. While this is true in terms of customer financial loss (i.e. restaurant cannot make sales during outage time, manufacturing companies cannot manufacture products), SAIFI/SAIDI metrics do not place any additional value on customer type. The ENO reliability strategy is to eliminate the outages regardless of customer type. Local management knowledge of the customer type (hospitals, emergency pumping systems, water sources, etc.) are part of the decision making, but are not algorithmically weighted. Since the majority of outages are a mixture of customer types, and since the Reliability Strategy is based on eliminating outage count, the use off the ICE Calculator as a decision factor may inadvertently lower the priority of purely residential customer devices.

Recommendation 6.3.2.1.1: The process for recording outage events needs to be modified to aggregate the multiple restoration events into a single outage. Although this is being pursued as part of the ENO Grid Mod/ADMS project it should be evaluated for a change in the near future. This will reduce the number of outages reported, will provide the ability for establishing failure rates, and will ensure that when ADMS is implemented that process will be aligned properly.

Response: The new ADMS system will aggregate the multiple outages associated with a higher-level failure (e.g. substation transformer) into one, single outage. The new ADMS will also contain the multiple restoration steps into one record. This new system is scheduled to be in service at the end of 2019. Given that, the investment and work to enhance the current OMS system along with the fact that many of the same employee resources on the ADMS project would be needed to implement the enhancement (impacting the ADMS timeline), it is best to wait until ADMS is available to implement this recommendation.

In the interim, ENO is considering guidance with regards to outage type coding on the separate events created because of stepped restoration. This would improve ENO's trend analysis on outage causes until ADMS can be fully deployed.

Recommendation 6.3.2.1.2: Currently ENO is reporting outage count based on the number of events which includes scheduled outages. With a count in excess of 2,000, that number appears excessive for a utility the size of ENO. The industry norm is to exclude scheduled outages, thus ENO should consider excluding those (or reporting scheduled outages separately) when the overall outage count is provided externally.

Response: Scheduled outages will be excluded from future reliability reporting to align with the industry norm.

Recommendation 6.3.2.2.1: With Current Outage Data - Before both design and construction, some level of prioritization should be pursued. Currently a 70% CI improvement is estimated. Since that value is based on overall Entergy, a value for ENO should be pursued. Once the inspection has been performed and expected enhancements identified, a ballpark cost should be developed for a benefit/cost (B/C) metric. With that metric, it can be determined if the project is reasonable to be designed. Once designed and a more accurate estimate is determined, then the benefit/cost can also be re-done to ensure the highest B/C value projects move forward.

Response: ENO has revised our selection criteria for FOCUS projects to ensure appropriate cost-benefit justification. ENO has implemented a stage gate process with cost benefit review following inspection and design in alignment with the Quanta recommendation. ENO is further considering revising the 70% CI improvement estimate based on recent project performance.

Recommendation 6.3.2.2.2: With Aggregated Outage Data - Once the multiple outage events can be aggregated, analysis can be performed to determine infrastructure failure rates.

Including a before and after. These results would provide an enhanced B/C analysis.

Response: The ability to associate failure rates to specific materials and equipment to inform future material and construction standards is included as a requirement in the Entergy Asset Management project to improve overall asset management capabilities at ENO.

Recommendation 6.3.2.3.1: Outage durations should be evaluated for potential enhancements. With the increase in SAIFI, SAIDI has increased by a larger proportion indicating that average outage durations have also increased. A large proportion of the SAIDI impact during an outage often occurs before the crew is on site for repairs. The average duration for the customers impacted can be reduced via sectionalizing devices that expedite partial restorations, as well as outage response from the time the outage began until repairs have been made.

Response: To reduce customer interruption duration, ENO has prioritized the acceleration of Distribution Automation projects in 2019 which will assist in fault location and expediting partial restorations. Aside from restoration efforts, the DOC is also working on new dispatch metrics (using region times to determine the problem areas, a dispatch time of 10 minutes or less, etc.) that will improve our dispatch times. Additionally, ENO has installed 300 fault indicators at strategic locations to allow the responding personnel to quickly identify and isolate the fault and more quickly restore customers.

Recommendation 6.3.2.4.1: It is recommended that ENO evaluate the additional implementation of distribution automation schemes (FLISR) to complement ENO's grid modernization program and reduce the system average amount of customers within each switching/protection zone to 500 customers. This is an industry leading practice that is gradually being adopted by other utilities.

Response: This will be considered in conjunction with the full implementation of the DA program in connection with Grid Modernization.

Recommendation 6.3.2.4.2: It is recommended that ENO explore the implementation of advanced reclosing solutions that are available in modern microprocessor-based reclosers (e.g., single-phase reclosing/tripping and lockout).

Response: The DA team has included coordination with Entergy Distribution Design Basis on the strategy and selection of specific equipment and material requirements and selection. The team is aware of these benefits and it is being considered in their equipment selection.

Recommendation 6.3.2.4.3: It is recommended that ENO consider accelerating, to the extent possible within regulatory requirements, the implementation of its grid modernization, AMI and ADMS programs, which will provide some of the foundational and intelligent infrastructure and systems (e.g., FLISR schemes) needed to improve distribution reliability, including the ability to automate outage data collection and analysis.

Response: ENO has established an accelerated plan to deploy the foundational technologies of AMI and the communication network. In the September 2018 ENO Rate Case, ENO has detailed the approach to deploy additional Grid Modernization investments.

Recommendation 6.3.2.5.1: ENO should pursue a corrective maintenance program that is based on a 100% inspection of the entire distribution system within an identified cycle, such as every 5-8 years. This would be similar to an expansion of the Backbone program in that the effort is to identify and fix specific problems and not perform an extensive rebuild. For example, if a broken crossarm or excessive leaning pole is identified, that needs to be fixed soon. As part of this effort, an overall standard practice should be developed specifying the requirements. Elements of a system inspection currently exist in the reliability programs currently underway at ENO. Full distribution inspection programs are not common practice in the industry, however, the current efforts by ENO offer a good start toward such an effort.

Response: The FIN Inspection program described above was designed to implement this recommendation.

Recommendation 6.3.2.6: An overall evaluation of the current ENO vegetation program should be performed to review current trim cycles, clearance requirements, trimming obstacles, and the different types of vegetation outages. ENO currently operates with highly restrictive vegetation practices within the City and deeper evaluation of the impact of those restrictions is warranted. That information can then be used to determine the need for improvements in the program and whether regulatory support will be required.

Response: ENO has previously discussed increasing the trim clearance distance from the current four feet to eight feet from primary conductor following Hurricane Isaac in 2012, but the City was not open to drastically altering the urban canopy based upon worse case hurricane scenarios. ENO remains open to exploring whether trim clearances in the City can be increased to improve reliability.

Recommendation 6.3.2.7: An evaluation of the transmission reliability should be performed combined with a plan to improve the transmission reliability.

Response: A transmission reliability plan has been developed and included.

Recommendation 6.3.2.8: An Internal Audit Program should be pursued to ensure current and new processes are effectively pursued and implemented. The level of an internal audit can vary but should ensure that committed requirements are being followed. As a first step, requirements should be documented. Examples of validation audits are: a. Outage data, b. Prioritization process, c. Corrective maintenance program, d. Tree Trim clearance, e. Pole Inspections.

Response: Internal Audit Services' ("IAS") efforts are based on a risk assessment of Entergy and this risk assessment has determined that one of our areas of focus should be on the changes in the utility processes, like the Grid Modernization projects. As a result, IAS is providing consulting services on the Grid Modernization projects, specifically, AMI, EAM, OMS/DMS, Customer Digital and Distribution Automation. The objective of the consulting projects is to ensure that risks are identified, and adequate controls are developed to mitigate the risks for both business processes and Information Technology General Controls, which includes system security. For the business processes, IAS is reviewing the Standard Operating Procedures ("SOPs") for each process to ensure that risks are identified, and adequate

controls are developed to address the risks. IAS is also reviewing the Cyber Security Plans to ensure that appropriate security controls/measures are implemented to mitigate any cyber security risks.

After each system is implemented, IAS will perform a post-implementation review to ensure that the new processes and systems are adequately controlled and that the controls identified in the consulting projects were implemented.