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October 1, 2018

Via Hand Delivery

Lora W. Johnson, CMC, LMMC
Assistant Clerk of Council
Room 1E09, City Hall
1300 Perdido Street
New Orleans, LA 70112

Re: Application of Entergy New Orleans, Inc., for Approval to Construct Distributed Generation-Scale Solar Photovoltaic Systems and Request for Cost Recovery and Related Relief
CNO Docket No. UD-17-05

Dear Ms. Johnson:

Enclosed please find an original and three copies of the Public Version of Entergy New Orleans, LLC's ("ENO") Project Status Report ("Report"). Please file an original and two copies into the record in the above-referenced matter, and return a date-stamped copy to our courier.

In connection with ENO's filing, there is information considered by ENO to be proprietary and confidential. Public disclosure of certain of this information may expose ENO and its customers to an unreasonable risk of harm. Therefore, considering the commercially sensitive nature of such information, this Report bears the "Highly Sensitive Protected Materials" designation. The confidential information included with the Report may be reviewed by appropriate representatives of the Council, its Advisors, and other parties to this proceeding, pursuant to the provisions of the Official Protective Order adopted in Council Resolution R-07-432 relative to the disclosure of Highly Sensitive Protected Materials. As such, these confidential materials shall be exempt from public disclosure, subject to the provisions of Council Resolution R-07-432.

Should you have any questions regarding the above matter, please don't hesitate to contact me at 504-576-2984.

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**BEFORE THE
COUNCIL OF THE CITY OF NEW ORLEANS**

**APPLICATION OF ENTERGY NEW)
ORLEANS, INC. FOR APPROVAL)
TO CONSTRUCT DISTRIBUTED)
GENERATION-SCALE SOLAR)
PHOTOVOLTAIC SYSTEMS AND)
REQUEST FOR COST RECOVERY)
AND RELATED RELIEF)**

DOCKET NO. UD-17-05

Entergy New Orleans, LLC

5 MW_{AC} Rooftop Solar PV Project Status Report

October 1, 2018



I. BACKGROUND

On March 22, 2016, Entergy Services, Inc. (“ESI”) published a public notice that Entergy New Orleans, LLC¹ (“ENO” or the “Company”) intended to issue a renewables-specific request for proposals (“2016 Renewables RFP”), and on July 13, 2016 ENO released the RFP. In response to the 2016 Renewables RFP, ESI, acting on behalf of ENO, developed a self-build project involving the construction of multiple, distributed generation scale (“DG-scale”) solar photovoltaic (“PV”) systems in New Orleans.

ENO’s Operating Committee selected several proposals in May 2017 including the self-build DG-scale solar PV project. On October 6, 2017, ENO submitted its *Application of Entergy New Orleans, Inc. for Approval to Construct Distributed Generation-Scale Solar Photovoltaic Systems and Request for Cost Recovery and Rate Relief* (“Application”) to the Council of the City of New Orleans (“Council”). Within the Application, ENO requested that the Council find that it is in the public interest for ENO to construct multiple DG-scale solar PV systems (the “Project”) with a total combined capacity of approximately 5 megawatts alternating current (“MW_{AC}”) in the City of New Orleans.

In the Application, ENO explained that the Project will focus on utilizing rooftops of existing buildings and properties, including customer-owned sites that will be secured under long-term leases as well as one ENO-owned site (the Dwyer Road service center).

In the Application, ENO further explained that it had, through a separate RFP process, selected Brightergy Louisiana, LLC (“Brightergy”) as the solar development company to serve as the engineering, procurement, and construction (“EPC”) contractor. Under the EPC agreement, Brightergy has principal responsibility for identifying and developing sites and negotiating the commercial lease terms, but ENO and its legal counsel are involved in the process and ENO maintains final say on the terms of the leases and the acceptability of the agreements prior to execution.

On December 14, 2017, the Council issued Resolution No. R-17-622 setting forth the procedural schedule for the instant docket. The Council-adopted procedural schedule required ENO to hold a public meeting, set an intervention deadline, and required the parties to hold settlement conferences which, if successful, would result in the submission of Agreement in Principle (“AIP”) to the Council no later than March 5, 2018.

On January 9, 2018, ENO held a public meeting at the Southern University at New Orleans – Lake Campus College of Business and Public Administration to provide information and answer questions concerning the Project and the 2016 Renewables RFP. The event was attended by representatives of the Council, members of the public, and representatives of the Alliance for Affordable Energy (“AAE”), the Gulf States Renewable Energy Industries Association (“GSREIA”), 350 New Orleans, and the American Institute of Architects-New Orleans Chapter (“AIA”).

¹ Pursuant to a Council-approved restructuring that was effective December 31, 2017, Entergy New Orleans, Inc. is now operating as Entergy New Orleans, LLC.

In February 2018, the parties began settlement talks and discovery pursuant to the Council’s procedural schedule, and held several meetings and conference calls working toward a settlement. The parties succeeded in reaching an Agreement in Principle (“AIP”) that was supported by all parties but one, Air Products and Chemicals, Inc. (“Air Products”), which did not oppose the AIP.

On May 11, 2018, ENO filed, on behalf of itself, the Advisors, and all parties to the case, the AIP reflecting the settlement among the parties and resolving all issues in the case. On June 21, 2018, the Council issued Resolution R-18-222 (“Resolution”) approving the AIP. The Council found that the AIP was just, reasonable, and in the public interest. The AIP, which was approved without modification, provided that prudent investments made pursuant to the Council’s approval of the AIP shall be eligible for recovery from customers and ENO will be afforded a full and fair opportunity to recover the revenue requirement associated with the Project through the mechanisms described in the AIP.

Per paragraph two on page 10 of the Resolution, the Settling Parties agreed that ENO shall file a report with the Council, served on the Advisors and Parties to this proceeding by September 30, 2018. The report is to provide details on: (i) the number and total combined capacity of installations placed into service as of the date of ENO’s report, (ii) the location and capacity of each installation completed to date, (iii) the total cost expended to date, (iv) ENO’s installed cost per watt to date (v) the extent to which locally owned businesses and/or Diverse Subcontractors and Suppliers have been employed to date, and (vi) the anticipated timeline for completion of the remaining installations contemplated for the Project. ENO files this Report in fulfillment of the Council’s directive and in compliance with ENO’s obligations under the AIP.

II. SUMMARY OF PROJECT STATUS

A. Completed Installations

Table 1. ENO's Completed Solar PV Projects

Number	Location	Capacity	Transfer Date
(1)	ENO’s Dwyer Road Service Center 5401 Dwyer Rd. New Orleans, LA 70126	166.5 kW _{AC} 195.8 kW _{DC}	July 23, 2018

As noted in Table 1, one solar PV system has been completed, commissioned and transferred to ENO. The solar PV system is located at ENO’s service center located at 5401 Dwyer Rd and serves as a test case as well as a demonstration site for prospective participants in the Project. The solar PV system has a capacity of 166.5 kW_{AC} and 195.8 kW_{DC}. The project employed 8 local workers. Construction on the site lasted slightly more than one month, with zero safety incidents occurring. The following figures illustrate the progress made on the Dwyer Rd installation and the completed facility.

Figure 1: Blank rooftop with barricades (May 8, 2018).



Figure 2: Site preparation (May 16, 2018).



Figure 3: ~50% of solar PV panels installed (May 22, 2018).



Figure 4: Completed solar PV installation (June 18, 2018).

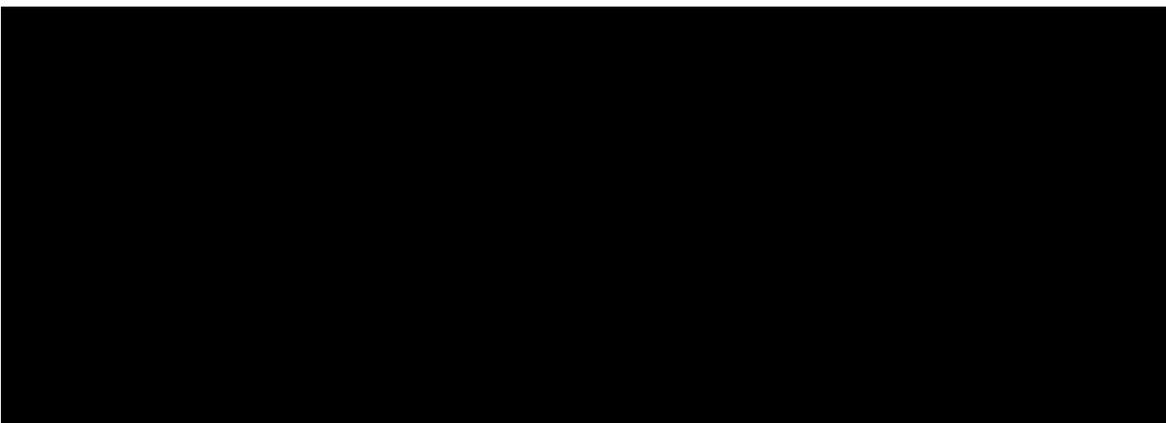


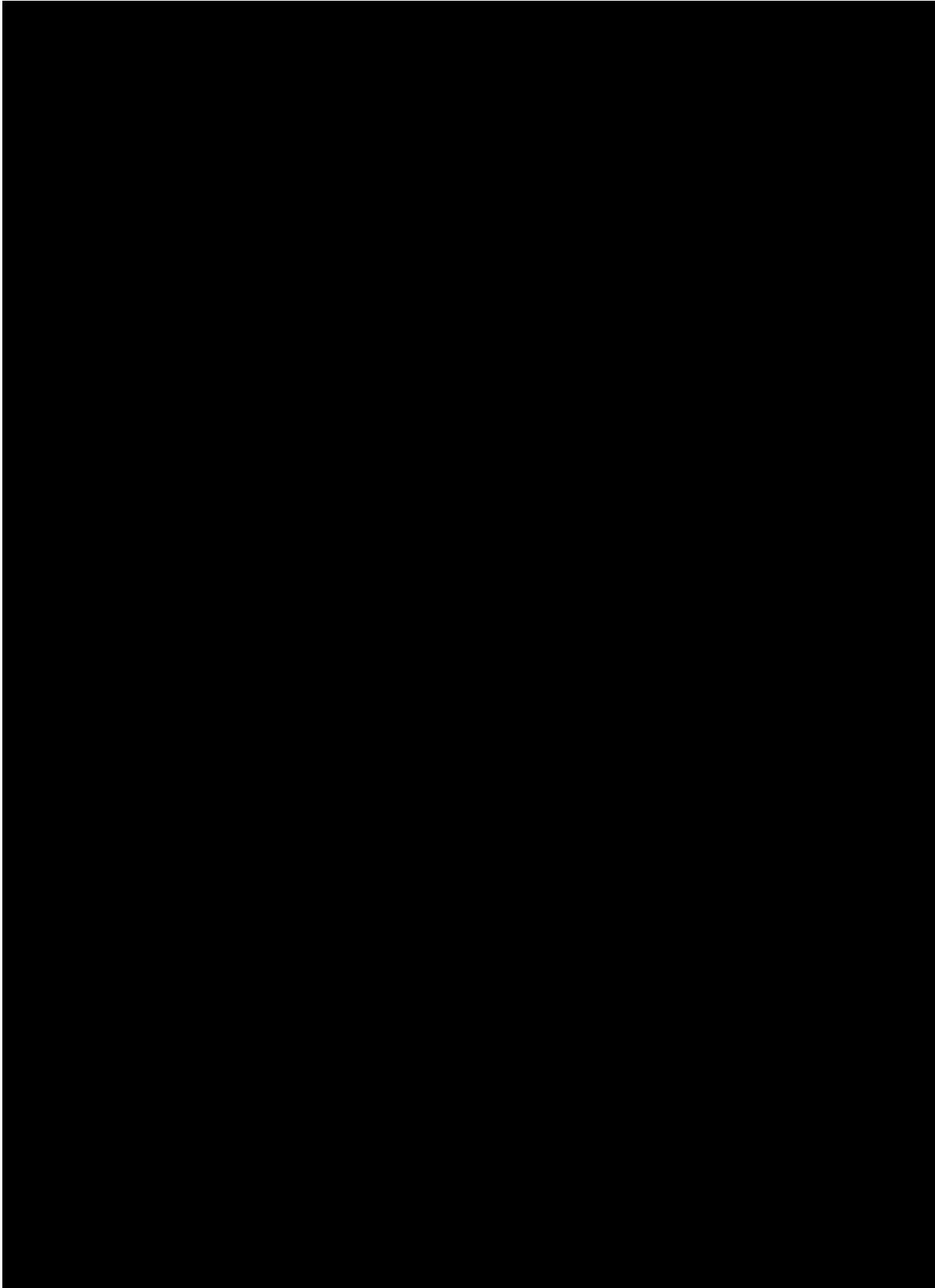
Figure 5: Metering configuration (June 18, 2018).

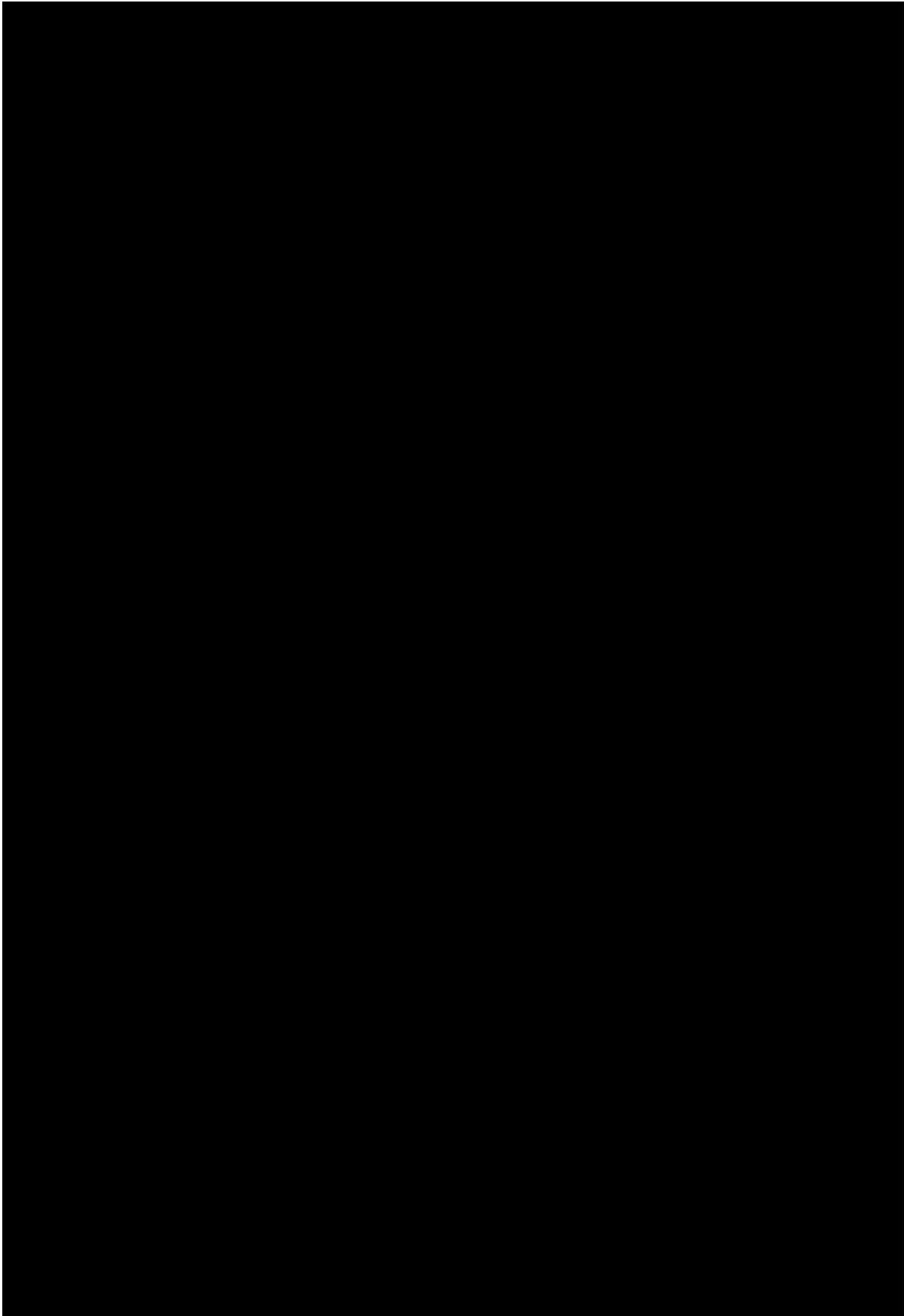


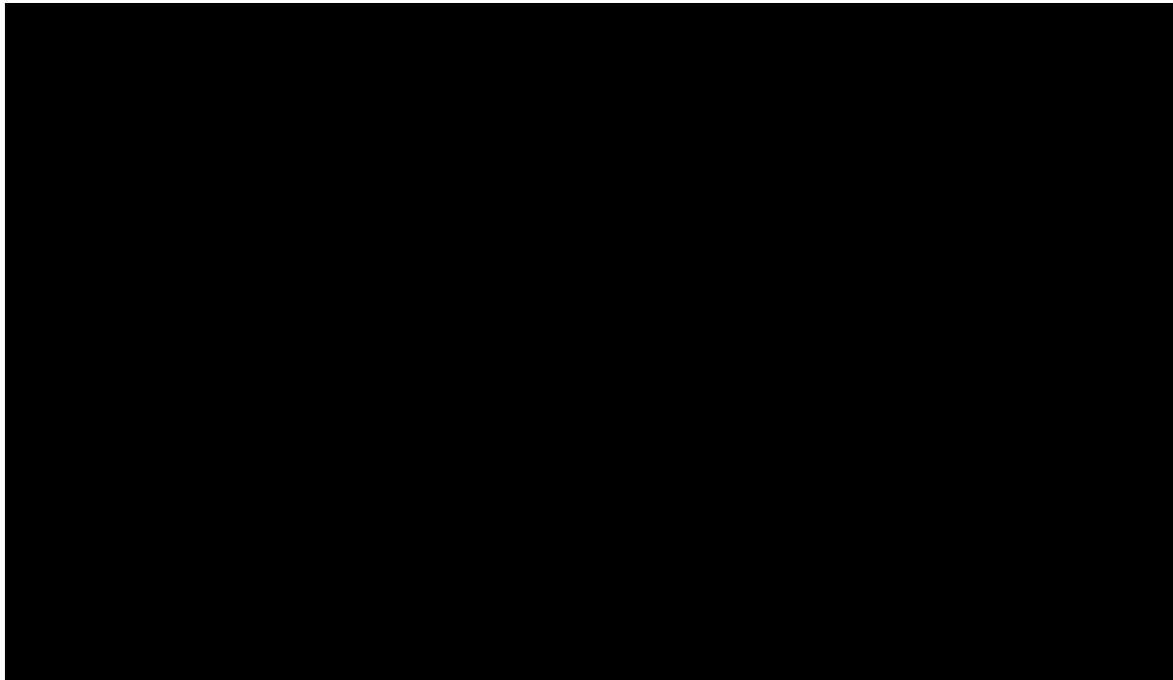
Ongoing Project Development

ENO and Brightergy have diligently pursued and evaluated both publicly- and privately-owned rooftops as potential sites for solar installations for the Project and continue to receive strong interest in the Project. This section of the Report provides the Council with an update on the development of those sites and the ongoing dialogue with site owners and/or custodians. ENO and Brightergy have made significant progress toward the target capacity of the Project and continue to identify viable candidate buildings for more detailed evaluation and negotiation. Due to ongoing lease negotiations with various third parties, ENO must designate much of this section of the Report as Highly Sensitive Protected Material (“HSPM”), pursuant to Council Resolution 07-432. An unredacted version of the Report will be made available to authorized representatives of the Council and parties to this Docket who have executed the Council’s Non-Disclosure Certificate.









III. PROJECT COSTS EXPENDED TO-DATE (AUGUST 2018)

	Actuals
ENO Costs	
Materials	\$ 1,371
Payroll	\$ 155,890
Employee Expenses	\$ 8,670
Indirect Costs	\$ 25,994
AFUDC Accrued	\$ 12,986
Sub-Total	\$ 204,911
Engineering/Consultants	\$ 11,276
Legal Support	\$ 12,176
EPC Vendor	\$ 349,300
Total Expenditures	\$ 577,663

IV. INSTALLED COST PER WATT (TO-DATE)

The total installed cost per Watt for the first completed solar PV system at ENO's Dwyer Road service center is derived by dividing the EPC cost for the site (\$349,300) by the nameplate DC capacity of 195.8 kW. This calculation yields an installed cost of approximately \$1.78/Watt plus a to-be-determined final allocation of ENO's costs. ENO's costs summarized in Table 1, above, include non-construction-related costs such as completing the regulatory approval process and developing several additional prospective sites. At completion of the project, ENO will be able to report the total installed costs for all sites on a \$ per Watt_{DC} basis as contemplated in the Application and memorialized in the AIP and Council Resolution No. R-18-222.

V. ADDITIONAL INFORMATION

A. USE OF LOCALLY OWNED AND/OR DIVERSE SUBCONTRACTORS AND SUPPLIERS

Local subcontractors have made up the vast majority of labor for the Project thus far. The only completed portion of the Project is the demonstration system located at Entergy New Orleans' Dwyer Road service center. Including Brightergy's subcontractors, ENO has used local labor for more than 85% of the work thus far.

As the list of viable individual candidate buildings is firmed up, ENO and Brightergy will work to incorporate local and/or minority-owned firms for analysis, construction, and final commissioning in the next phase of the Project. Several minority-owned firms have been identified and will be invited to bid on Brightergy's RFPs for the upcoming projects.

B. DEVELOPMENT OF PIPELINE OF POTENTIAL LOCATIONS

A mix of publicly- and privately-owned rooftops have been evaluated thus far. A number of smaller rooftops have also been evaluated for consideration. However, among those publicly- and privately-owned rooftops under consideration, the primary focus has been on identifying larger rooftops that provide economies of scale and can be interconnected to ENO's distribution system in a cost-effective manner consistent with the Project budget approved by the Council. In addition to the potential sites described above, which would allow for achievement of the 5 MW_{AC} target if negotiations for each site result in an executed lease, ENO and Brightergy continue to evaluate other potential sites as backups and for future consideration. In the event that one of the project sites listed above is unable or unwilling to participate, the team wants to ensure adequate backup sites in order to complete the 5 MW_{AC} target. Continuing to evaluate sites will also provide valuable market intelligence to the Council as it evaluates potential next steps after the initial 5 MW_{AC} of sites are completed.

C. MISCELLANEOUS

a. IMPACT OF U.S. ITC'S DECISION IMPOSING TARIFFS ON PV SOLAR MODULES

Thus far, the main effect of the tariff decision has been to slow the decline of panel pricing and to encourage sales from suppliers outside of tariff-impacted countries. Brightergy has sourced panels from alternate vendors to provide pricing that stays within the parameters of the EPC contract with ENO.

At this time, ENO and Brightergy do not have reason to believe that tariff decisions by the United States government or subsidy modifications by the Chinese government will have a substantial impact on pricing. The Project team continues to follow the issue closely and will notify the Council if there is a change in the situation. It

is important to note that, due to the ongoing threat of an escalating trade war between the U.S. and China, there continue to be uncertainties. For example, the U.S. just enacted tariffs on inverters manufactured in China. Brightergy's suppliers are working to find the best solution for this issue. As of this Status Report, Brightergy has ordered 50% of the total inverters needed for the project, [REDACTED]. This order will not be subject to the 10% tariff.

b. INDUSTRIAL TAX EXEMPTION PROGRAM (“ITEP”) REQUEST STATUS

The ITEP is an incentive program which offers tax abatement for certain capital projects constructed in Louisiana. Under current rules, which changed beginning in mid-2016,² state and local approvals are required and the ITEP offers up to an 80% property tax abatement on qualifying capital investment, for an initial term of up to five years, with the option to renew for an additional five years.

The first step in the process is to submit an advance notification to the State, before the project begins, to let the Louisiana Department of Economic Development (“LED”) know that an applicant is starting a project that may qualify for the ITEP. The advance notification provides an estimate of jobs created, estimated payroll associated with those jobs and estimated capital investment. After a project is completed, an application is prepared and submitted to the LED. The application will include an Exhibit A, that is prepared with the support of the LED, which establishes the terms and conditions the project must meet to maintain the tax exemption. Job creation or job retention is required in order for the application to be approved by the LED Board, though the number of jobs or the payroll required is negotiated with the LED and becomes a condition in Exhibit A. Upon approval of the application by the board, the parish governing bodies (in this case, the Council, the Orleans Parish School Board, and the Orleans Parish Sheriff’s Office) have up to 60 days to approve or reject the application, and if no action is taken by the three Orleans Parish governing bodies, then the application is deemed approved.

ENO submitted the advanced notification for the Dwyer Road project on May 24, 2018, and is preparing the Application to be submitted to the LED. ENO representatives will meet with the LED to draft the Exhibit A. The application must be filed by February 2019. [REDACTED]

c. DISTRIBUTION INTERCONNECTION PROCESS

The solar PV system installed at ENO’s Dwyer Road site provided a test case to evaluate distribution interconnection issues and allowed ENO to learn valuable lessons about the most cost-effective method of interconnecting that also maintains reliability. As part of that installation, the solar PV system was physically interconnected to the

² Executive Order Number JBE 2016 – 26. Conditions for Participation in the Industrial Tax Exemption Program. See: <http://gov.louisiana.gov/assets/ExecutiveOrders/JBE16-26.pdf>

existing transformer, which, in hindsight, led to the discovery of technical challenges and potential reliability issues with such an interconnection approach. First, there was limited space within the transformer to interconnect the solar PV system upstream of the current transformers that tie into the building's electric load. Second, using the existing transformer at the Dwyer Road service center site did not affect the size of the solar PV system that was ultimately installed, but had the transformer been smaller, ENO would have had to either install a new transformer dedicated to the solar PV system or reduce the solar PV system size below what the roof would support. Third, using the existing transformer meant that power had to be temporarily cut to the building to allow the tie-in to occur. The site has a back-up generator so the temporary outage did not affect operations. However, in instances where a customer that agrees to host a rooftop solar PV system does not have a generator, the customer will be out of service temporarily which could negatively affect their operations. Finally, using an existing transformer that is serving a customer's electric load means that future maintenance and repairs to the solar PV system could theoretically need to involve the interconnection with the transformer, which if the transformer was required to be taken out of service would negatively affect the host site's reliability and operations.

Given what was learned after the fact at ENO's Dwyer Road service center, all future installations [REDACTED] will use dedicated transformers that tie the solar PV system into ENO's distribution system upstream of the customer's transformer(s) and meter(s). While there is an added cost to the Project involved with adding a new transformer for each installation, there are numerous benefits as discussed above. In the case of the three solar PV systems with total capacity of [REDACTED] MW_{AC} to be installed at [REDACTED], the estimated added cost for two new, dedicated transformers is approximately \$ [REDACTED].

As part of the interconnection process for [REDACTED], a second issue surfaced regarding the potential, under certain circumstances, for power to backfeed onto the distribution feeder and flow back to ENO's substation, thus potentially causing reliability issues. ENO's transmission and distribution systems are not yet designed to accommodate 2-way power flows from the distribution system onto the transmission system. To mitigate the reliability issue that could occur under a circumstance where load on a feeder is low enough to trigger backfeed of solar power to the substation, ENO's Distribution Engineering group designed a solution whereby a recloser is installed upstream of the point of interconnection. The total estimated cost of the two required reclosers for the TCI project is approximately \$ [REDACTED]. While both added costs were unforeseen at the time the Project was developed and approved by the Council, ENO is not anticipating a concern at this time relative to the overall project budget.

VI. CONCLUSION

ENO is encouraged by the progress that has been achieved since the Council approved the Project on June 21, 2018 and looks forward to continuing to work with the Council and all stakeholders as the Project continues to develop.

CERTIFICATE OF SERVICE

Docket No. UD-17-05

I hereby certify that I have served the required number of copies of the foregoing report upon all other known parties of this proceeding, by the following: electronic mail, facsimile, overnight mail, hand delivery, and/or United States Postal Service, postage prepaid.

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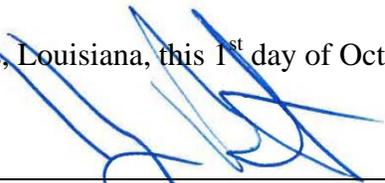
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New Orleans, Louisiana, this 1st day of October, 2018.



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