

2018 Montana Capacity Request for Information

July, 2018 Revision 0 – For Issue



2018 MONTANA CAPACITY REQUEST FOR INFORMATION

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ATTACHMENTS

Attachment A Response Forms

1.0 INTRODUCTION

1.1 OVERVIEW AND INTENT

NorthWestern Corporation d/b/a NorthWestern Energy ("NorthWestern") conducts ongoing supply- and demand-side planning to meet its customer's electric capacity and energy requirements in Montana. As part of this planning process, NorthWestern submits an Electricity Supply Resource Procurement Plan ("Plan") to the Montana Public Service Commission ("Commission") outlining plans for its electric portfolio in the context of least-cost, low-risk alternatives for its Montana customers. NorthWestern submitted its 2015 Plan to the Commission on March 31, 2016 (Docket No. N2015.11.91). The Commission provided supplemental comments to NorthWestern's 2015 Plan (dated December 20, 2017) where, along with other comments, the Commission suggested that it would be useful for NorthWestern to solicit information regarding potentially available resource alternatives for capacity planning as part of its next Plan (Supplemental Comment 20). NorthWestern is issuing this Request for Information ("RFI") for capacity products as a result of the Commission's Supplemental Comments to the 2015 Plan and in support of developing its 2018 Plan.

The purpose of this RFI is to gather data and information from RFI respondents ("Respondents") regarding potential capacity products in and surrounding NorthWestern's Montana service territory to inform the 2018 Plan. Responses received as part of this RFI process will be for informational purposes only, and NorthWestern does not intend to enter into any commercial negotiations or agreements as a result of this RFI process. After the RFI process is completed, NorthWestern may solicit bids through a competitive Request for Proposals (RFP) process.

1.2 NORTHWESTERN OVERVIEW

NorthWestern serves more than 367,000 residential and business customers with electricity and natural gas service in Montana. In Montana, NorthWestern owns and operates thermal, wind, and hydroelectric generation, and also purchases energy from the market to meet customer load requirements. More information on NorthWestern is available at the company's web site at www.northwesternenergy.com.

2.0 CAPACITY PRODUCTS OF INTEREST

The following Sections provide an overview of potential capacity products that are of interest to NorthWestern. In general, this RFI is requesting information related to capacity resources that can serve periods of peak demand on NorthWestern's Montana system. NorthWestern's primary periods of peak demand occur in the winter months in addition to some summer months. The periods of peak demand are generally served by dispatchable generation resources.

NorthWestern is interested in reviewing capacity products that could potentially serve NorthWestern's Montana system. This could include electric generation, energy storage, and/or demand response ("DR")/demand side management ("DSM") programs as explained further in this document. New or existing resources located in NorthWestern's Montana service territory or in the greater Northwest U.S. region are of interest. The resource does not have to be directly connected, but would be expected to have a viable delivery path to NorthWestern's Montana system.

The discussion provided below for each capacity product type as well as associated information requested is intended to be representative and not all-inclusive. Respondents should provide information for a given capacity product to a level of detail sufficient to provide NorthWestern with a clear, concise understanding of associated attributes. Respondents are encouraged to provide information for other capacity products not specifically identified herein if Respondents believe such products would be beneficial for NorthWestern to review.

2.1 GENERATION CAPACITY

Types of generation capacity could include standalone¹, combinations, or portions of the following:

- Thermal resources (solid, liquid, and/or gaseous fuel)
- Hydroelectric resources
- Non-hydroelectric renewable resources (wind, solar, biomass, etc.)
- Slice of system or slice of asset of one or a combination of those listed above

2.2 ENERGY STORAGE SYSTEM

Energy storage system ("ESS") resources could include standalone, combinations, or portions of the following:

- Battery energy storage systems ("BESS")
- Compressed air energy storage ("CAES")
- Pumped hydro energy storage ("PHES")
- Other energy storage applications

2.3 DEMAND RESPONSE/DEMAND SIDE MANAGEMENT

NorthWestern is interested in understanding information related to potential DR/DSM programs and applications. This could include load reduction from standalone residential, commercial, or industrial customers or an aggregation across multiple customers/customer types. Individual NorthWestern customers, groups of NorthWestern customers, and/or DR aggregators (e.g. administrators) are encouraged to respond to this RFI.

¹ Refer to NorthWestern's 2015 Plan for capacity contributions of various resource types.

2.4 DELIVERY STRUCTURES

Respondents are encouraged to provide information for one or multiple delivery structures (i.e. contract mechanisms) for a potential capacity product. Depending on the type of capacity product, this could include:

- Sale of a portion or of an entire existing asset
- Develop-Transfer ("D-T")
- Build-Transfer ("B-T")
- Power purchase agreement ("PPA") short and/or long term
- Administration/program management (e.g. for DR aggregator)
- Other contracting mechanisms pertinent to a given capacity product

2.5 DESIRED INFORMATION TO BE PROVIDED

Respondents are requested to provide narrative and supporting data and documentation to thoroughly describe a potential capacity product. NorthWestern requests that Respondents populate applicable portions of the response data form included as Attachment A to this RFI, and that Respondents provide any other applicable data and information to provide a full characterization of the resource or program. Respondents are encouraged to provide multiple response data forms if there are capacity product variations and/or multiple capacity products are being characterized.

Information and data requested by NorthWestern includes, but is not limited to, the following:

- Respondent corporate information and organizational overview
- Experience with similar applications including references, as applicable
- Capacity product attributes including:
 - Type and scale, including, as applicable, description of the process, commercial experience, type of participants (DR), etc.
 - Location, including, as applicable, electric point of interconnection, fuel supply source/interconnection, etc.
 - Vintage and useful life (remaining or predicted)
 - Dispatchability or expected capacity factor (for intermittent resources)
 and representative daily generation profile (if applicable)
 - Performance including, as applicable, output, heat rate, startup/shutdown durations, ramping capability, etc.
 - o Environmental attributes including, as applicable, air emissions, permit limitations, historical compliance, etc.
 - Capital costs/delivered product pricing
 - Historical and/or projected fixed and variable operations and maintenance ("O&M") costs including, as applicable, program administration costs

- Historical and/or projected operating capability including, as applicable, load reduction capability and associated time of day (DR), operational limitations/curtailments, anticipated degradation or performance improvements, etc.
- Historical and/or projected availability/reliability
- Capacity product deliverability to NorthWestern's Montana system (capability, agreements in place, and associated costs/fees)
- Capacity product fuel supply, as applicable level of firmness
- Existing commercial agreements in place
- Overview of terms/form agreement language for a potential agreement in the future, and any other general commercial considerations pertinent to the potential capacity product

The purpose of this RFI process is to inform NorthWestern in their planning process and, as such, Respondents are encouraged to provide additional information not specifically requested herein if such is pertinent to fully describing the capacity product.

3.0 RFI SCHEDULE

An outline of the RFI process is summarized in the table below. The dates and times presented in the summary schedule are subject to change by NorthWestern. Any changes to the RFI schedule will be communicated to potential Respondents by email and will be posted on NorthWestern's company website.

Activity	Date	Time
Release of RFI	July 9, 2018	5:00 p.m. MST
Notice of Intent to Respond	July 18, 2018	5:00 p.m. MST
Last Day for Questions	July 25, 2018	5:00 p.m. MST
RFI Responses Due	July 30, 2018	5:00 p.m. MST
Review of Responses	August, 2018	-

4.0 RESPONSE DEVELOPMENT CYCLE AND SUBMITTAL

This RFI is being administered by HDR Engineering, Inc. ("HDR"). The following Sections provide relevant contact information and an overview of the response submittal process.

4.1 CONTACT INFORMATION

All communications, including any clarifications and/or questions, should be directed to HDR. HDR's representative ("HDR Representative") is:

Scott Leigh

• Phone: (248) 882-6025

• Email: NWEMT_2018CapacityRFI@hdrinc.com

Email is the preferred method of communication.

4.2 RESPONSE DEVELOPMENT CYCLE

Potential Respondents are requested to submit a notice of intent to respond by email by the date listed in Section 3.0 and directed to the HDR Representative. In this notice (and in the response), Respondents should identify a main point of contact (or contacts) for the RFI process.

Questions and/or clarifications during the development of responses shall be emailed to the HDR Representative. Responses to questions will be provided by the HDR Representative and/or by NorthWestern directly. Responses to questions will be provided as soon as possible after receipt and NorthWestern/HDR plans to respond to/acknowledge all questions by July 27, 2018. Questions and/or clarifications submitted after the "Last Day for Questions" indicated in Section 3.0 may not receive a response.

Respondents should assume that any questions asked, as well as associated responses from NorthWestern/HDR, will be made available to other potential Respondents for information during the response development cycle. If a Respondent desires that a question and the associated response be confidential (not shared with other Respondents), the question must be marked clearly as such. Regardless, NorthWestern/HDR will determine if a portion of all of the contents would be appropriate to be made available to all Respondents (i.e. non-project specific information applicable to the response process). Refer to Section 5.3 for additional provisions regarding confidentiality.

4.3 SUBMITTAL PROCESS

Responses are due by the "Response Due Date" indicated in Section 3.0 of this document. Electronic submittal via email is desired, and responses should be directed to the HDR Representative. Email attachments less than 10 MB are preferred. However, if email attachments larger than 10 MB are required, Respondents should send an email to the HDR Representative and an alternative delivery method will be coordinated.

If Respondent desires to submit a hard copy of the response, it can be directed to:

HDR – Attn: Scott Leigh 5405 Data Court Ann Arbor, MI 48108

Responses will be accepted if received electronically or post-marked by the "Response Due Date" indicated in Section 3.0; responses received after this date may be discarded.

4.4 DESIRED SUBMITTAL CONTENTS

Respondents are requested to submit informational responses with the following general format and content:

- Cover letter
- Response narrative (refer to Section 2.5)
- Populated response form in native format (Attachment A)
- Any other pertinent information not specifically requested in this RFI that Respondent views as useful for NorthWestern to understand

Respondents are generally requested to submit narrative responses in the format they deem appropriate for this RFI process. Responses should be concise yet comprehensive outlining the Respondent's capacity product. Respondents are encouraged to provide additional information not specifically requested in this RFI if such is useful for understanding information associated with a given offering.

5.0 ADDITIONAL PROVISIONS

5.1 REVIEW OF RESPONSES

NorthWestern intends to review responses to understand information and attributes of potentially available capacity resources that could provide benefit to its Montana customers. NorthWestern and/or HDR may contact Respondents with questions and/or clarifications during the review.

As a result of the review, NorthWestern may perform some level of portfolio modeling utilizing the information received in response to this RFI to further understand attributes associated with a capacity product.

A summary of responses may be included as part of the 2018 Plan.

5.2 RESERVATION OF RIGHTS - NO ACTION

NorthWestern intends to consider responses to this RFI for informational purposes only and does not intend to enter into commercial negotiations and/or agreements, bi-lateral or otherwise.

NorthWestern reserves the right, in its sole discretion, to terminate this RFI process at any time.

NorthWestern, at its sole discretion, may complete a subsequent RFP process. Responding to this RFI does not guarantee that a Respondent will be included in any subsequent solicitations or processes.

5.3 CONFIDENTIALITY

As this process is being initiated in response to the Commission's Supplemental Comments, NorthWestern may be required to disclose specific information received as part of this RFI process. In addition, NorthWestern will disclosed specific information received as part of this RFI process to external consultants engaged to assist NorthWestern (e.g. HDR). If a Respondent desires to keep any specific information submitted as part of its response to this RFI confidential, the Respondent should identify that confidential information in its cover letter. NorthWestern will not attempt to protect any information that is not specifically identified as confidential. Designations by a Respondent that the entire response is confidential are not a valid identification of specific information.

As a public utility, NorthWestern is subject to regulation by the Commission and by the Federal Energy Regulatory Commission ("FERC"). Information received as part of this RFI process may be submitted as part of a regulatory proceeding. The Commission conducts open processes, and any unprotected information included in filings is available to the public. If NorthWestern intends to provide, other than in response to a data request, any specific information to the Commission that the Respondent identified as confidential in its cover letter, NorthWestern will notify the associated Respondent and will seek a protective order for the identified information. If a data requests seeks information that a Respondent identified as confidential, NorthWestern will notify the Respondent of the data request as soon as practical after receipt of the data request. If Respondent desires to protect identified information, the Respondent must prior to the due date for NorthWestern's response to the data request, petition the Commission for a protective order. NorthWestern provides no assurance that information contained within responses will be granted protection. Respondents may be required to enter into a confidentiality agreement with NorthWestern if there are any subsequent discussions or solicitations.

5.4 OWNERSHIP AND RETURN OF RESPONSES

All materials submitted as part of this RFI shall become the property of NorthWestern and will not be returned.

5.5 COST OF RESPONDING

Responses to this RFI will be prepared at the sole cost and expense of the Respondent and with the express understanding that there will be no claims whatsoever for reimbursement from NorthWestern. Respondents shall bear all costs and expenses associated with preparing and submitting responses whether or not the RFI process is completed or abandoned at any point of the process.