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APPLICATION FILING REQUIREMENTS TRANSMISSION LINE PROJECTS

PUBLIC SERVICE COMMISSION OF WISCONSIN
WISCONSIN DEPARTMENT OF NATURAL RESOURCES

Public Service Commission of Wisconsin
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Application Filing Requirements
Transmission Line Construction Projects

This document lists information required for a complete application to construct a new electric transmission project that requires either a Certificate of Authority (CA) under Wis. Stat. § 196.49 or a Certificate of Public Convenience and Necessity (CPCN) under Wis. Stat. § 196.491 from the Public Service Commission of Wisconsin (PSC).

The CPCN and CA are PSC certifications, but the applicant also might need to request certain Wisconsin Department of Natural Resource (DNR) permits. This document therefore also refers to information required for permits from the DNR under Wis. Stat. § 30.025.

Overall, the filing requirements are intended to organize information consistently and to facilitate PSC and DNR application reviews.

Joint PSC/DNR Pre-Application Consultation Process

An applicant must consult with both the PSC and DNR prior to submitting its application (Wis. Stat. § 30.025(1m) and Wis. Admin. Code § PSC 4.70(1)). This pre-application consultation process is a series of discussions with the staff of these two agencies. Each agency has its own requirements, but the two agency reviews interrelate.

A proposed project may require wetlands, waterway, construction storm water, and any other applicable permits from DNR. DNR Office of Energy staff can help determine permitting requirements during pre-application discussions. During the pre-application process, the PSC and DNR staff will identify the number of paper copies of the application that both state agencies may require.

Topics discussed during the pre-application process include:

- PSC and DNR staff contacts
- Applicable portions of the filing requirements for each agency
- Appropriate application formats and subject matter, such as for maps and diagrams
- Specific permits and approvals required for the project
- PSC's and DNR's projected review timelines and important milestones
- Alternative routes or designs
- Appropriate type, scope, and timing of required field work (habitat assessments, archeological surveys, wetland delineations, biological surveys, etc.)

During the pre-application period, the applicant should also solicit additional information from other interested persons through public outreach.

DNR Joint Application Needs

Like the PSC, DNR requires a complete joint application for the project review to proceed. The applicant must also consult DNR staff to ensure that particular requirements for the joint application are met.

Permits and Application Requirements

DNR permits required for the project will be identified during the pre-application process.

Under Wis. Stat. § 30.025, the two agencies must follow a common review timetable if impacts to wetlands and/or navigable waters are involved. For this reason, a complete application containing both DNR and PSC required information is submitted to both agencies at the same time. Specific DNR permit application requirements can be confirmed by the DNR Office of Energy's Energy Project Liaison staff (https://dnr.wi.gov/topic/Sectors/Energy.html). The requirements include information and materials needed for analysis of potential impacts to rare species and natural communities, and wetland or waterway construction permits.

Endangered Resources

Applications must include an Endangered Resources (ER) Review from the DNR or a Certified ER Reviewer, an ER Verification Form if the project is covered by the Broad Incidental Take Authorization (BITA) for No/Low Impact Activities, or a 'No actions required/recommended' finding from the DNR Natural Heritage Inventory (NHI) Public Portal, accessed at: https://dnr.wi.gov/topic/erreview/publicportal.html. The ER Review includes an analysis of the information contained in the NHI database to determine if there could be impacts to rare species and how to avoid/minimize those impacts. Specific ER screening requirements can be confirmed by the DNR Office of Energy's ER Review staff (https://dnr.wi.gov/topic/Sectors/Energy.html). The applicant should complete an ER screening early in the pre-application process to determine what, if any, field work should be completed. DNR may require fieldwork to be conducted (1) prior to submitting an application, (2) while the application is under review, (3) prior to the start of construction, and (4) post construction.

Wetlands and Waterways

The project area must be evaluated for the presence of wetlands and waterways and documentation of the evaluation must be submitted at the time of filing.

Wetlands:

Project areas limited to temporary impacts may be evaluated for the presence of wetlands through conservative desktop methods or through a field evaluation. The conservative desktop method assumes that all areas mapped under "Mapped Wetlands" and "Wetland Soils & Indicators" layers on the DNR's Surface Water Data Viewer (SWDV) are wetland. Field evaluations are required for all projects that involve permanent wetland fill, regardless of desktop wetland mapping.

Waterways:

All waterways mapped under the "Surface Waters" layer on the DNR's SWDV, and any additional field-identified waterways, shall be assumed navigable unless a navigability determination has been conducted by the DNR. If a navigability determination is requested, a navigability determination package shall be included in the application filing (see Section 6.1.3).

The applicant must submit a Waterway/Wetland Impact Location Table (DNR Table 1) and a Waterway/Wetland Environmental Inventory Table (DNR Table 2) for the entire project (including any alternative routes/areas). To complete the waterway sections of the DNR Tables, all DNR-mapped waterways plus any field identified waterways must be included in these tables, regardless of a navigability determination being requested.

The tables must be updated throughout the review process as more accurate information becomes available. The wetland and waterway unique features that are used in the DNR tables must also be included in the attributes tables of the submitted Geographic Information Systems (GIS) data, as well as the wetland and waterway maps, that are part of the project application. **Submitted GIS data should be shapefiles only. Do not provide geodatabases or aerial imagery raster data.**

Other State Agencies

WisDOT Permits and Reviews

Wisconsin Department of Transportation (WisDOT) oversize and overweight permits may be required for transporting project components to construction sites. In addition, a review for high structure permits issued by WisDOT Bureau of Aeronautics may also be required (See Section 5.14). Applicants should contact WisDOT at an early stage in project development and before submitting an application to the PSC to discuss the likely permitting needs for the project.

DATCP Application Needs

Utility-proposed projects may require an Agricultural Impact Statement (AIS) from the Department of Agriculture, Trade and Consumer Protection (DATCP). If the project is subject to AIS requirements, DATCP requires the submittal of a complete Agricultural Impact Notice for Electric Transmission Projects and associated tables and GIS data. Applicants should contact the DATCP AIS program prior to submitting an application to the PSC to determine DATCP filing requirements. DATCP may require a paper copy of the PSC application and associated GIS data.

Application Formats

Application Tables

All filings on ERF must be as PDF or Excel files. The tables submitted as part of the application such as cost and mailing list spreadsheets are to be submitted in Adobe Acrobat (*.pdf) as well as Microsoft Excel spreadsheets. All documents that are part of the application must be submitted to ERF directly, not as documents that are attachments to (embedded within) a single PDF. Mailing lists as part of the application should be submitted to the ERF.

The DNR Tables are provided as a Microsoft Excel spreadsheet to be completed, and copies of these tables can be found on the PSC website, or by contacting DNR Office of Energy's Energy Project Liaison staff. Copies of these DNR Tables must be submitted in Excel format.

Any submitted mailing lists must be uploaded to ERF as Microsoft Excel spreadsheets, be identical to the example shown below, and must meet the following format criteria as demonstrated below:

- Submit the table in Microsoft Excel.
- For property owners in the project area, replace full name or business name with "LANDOWNER(S) OR CURRENT RESIDENT(S)" in the "name" column.
- Do not use punctuation marks.
- Capitalize all data entries.
- Comply with current U.S. Postal Service mailing standards.
- Only use the Email column if addresses are known and not more than one year out-of-date.
- Mailing list(s) should be able to be cross-referenced with the submitted GIS parcel data through the name or address column, but do not add additional columns or formatting. Mailing lists should include property owners located up to 300 feet from the facilities that are part of the application.

Sample Mailing List Table

attention	name	address	city	state	zip	email
CITIZENS UTILITY BOARD	COREY SINGLETARY	625 NORTH SEGOE ROAD STE 101	MADISON	WI	53703	SINGLETARY@CUBWI.ORG
CLEAN WISCONSIN	KATHRYN NEKOLA	634 WEST MAIN STREET STE 300	MADISON	WI	53703	KNEKOLA@CLEANWISCONSIN.ORG
	LANDOWNER/CURRENT RESIDENT	123 EAST STREET	MADISON	WI	53703	
	LANDOWNER/CURRENT RESIDENT	456 WEST STREET	MADISON	WI	53703	

Contact PSC staff regarding questions for proper completion or modifications to the Route Summary and Segment Impact tables, cost breakdowns, and mailing lists.

Contact DNR Office of Energy's Energy Project Liaison staff (https://dnr.wi.gov/topic/Sectors/Energy.html) for questions regarding the two DNR tables.

Geographic Information System Submissions

GIS data files are now compatible with ERF and must be submitted to the docket via the ERF "Upload GIS Files (Public)" page[1]. GIS data files must be submitted in a format that is compatible with the current version of ArcGIS. Data file names should be descriptive of the contents.

[1] Total file size limit per submission is 20 MB. Split files into multiple submissions as appropriate.

Provide the following GIS-related items as part of the application:

- GIS data used to produce all maps submitted as part of the application as detailed in Section 1.9. **Only provide shapefiles. Do not provide geodatabases or aerial imagery raster data.**
- An Excel spreadsheet listing all GIS data files, a file description, the source of the data, and the date when the data was collected or published.

All GIS data from local to statewide resolution must be projected in "NAD 1983 HARN Wisconsin TM (Meters)" projection system.

Photographic and Line Drawing Submissions

- Line drawings must be in AutoCad and may be in either *.dwg or *.dxf format. The preference is *.dwg.
- Any photographic renderings (photo simulations) of proposed facilities on the existing landscape must be submitted in a high-resolution raster format.
- Scanned maps and diagrams that cannot be submitted in any other format must be submitted in *.gif format at a depth of 256 colors or less.

Application Size

Applicants are required to minimize the physical size of their applications by eliminating superfluous information not material to the case.

- Only submit those pages relevant to the information requirement. Do not submit multi-page ordinances, land use plans, etc. unless the entire document would be helpful for context.
- Minimize duplicative information. An appendix is the appropriate location for information that is referred to in several different sections of the application.
- Submit only official correspondence between the applicant and state, local and federal government agencies. PSC staff needs to review this correspondence to verify that the applicant has applied for the necessary permits and to ascertain the status of the permit review. Do not include unofficial minutes of meetings, records of telephone conversations, or billings from the PSC or DNR.
- Applications should be printed double-sided. Exceptions to this requirement are maps sized larger than 11 x 17 inches.

Confidential and CEII Materials

Organize the application so that all confidential materials are only in Appendices and separated from non-confidential materials. Submit confidential materials in compliance with the confidential materials handling procedures of each agency.

Confidential project documents, such as ER and cultural resource documents, must be submitted confidentially to both agencies.

Prior to submitting any critical energy infrastructure information (CEII) related to the project, contact the PSC case coordinator for instructions regarding how to do so.

PSC Electronic Regulatory Filing (ERF) System

The ERF system is the official file for all dockets considered by the Commission. Use the ERF system to post all confidential and non-confidential application materials, including all materials provided to DNR. No joint application materials should be provided separately to DNR through the DNR's E-Permitting site, unless specifically requested to do so, but should be posted to ERF. Both the initial application and the complete application must be submitted using the ERF system.

Instructions for submitting documents to the ERF system can be found on the PSC website. Search for "ERF Policy/Procedure" on the PSC Homepage search bar for the current instructions.

Application Completeness

For CPCNs, PSC and DNR staff will examine the application during a 30-day completeness review period as required under Wis. Stat. §196.491(3)(a)(2). The applicant will be notified if an application is deemed complete by the end of the 30-day period. If the application is found to be incomplete, PSC will send the applicant a letter identifying the deficiencies. The applicant may then submit revised or supplemented application materials to the PSC and DNR for a new 30-day application completeness review. There is no statutory time limit for an applicant to submit the revised or supplemental materials in order to remedy identified deficiencies.

Applicants should be aware that complete applications rarely answer all the questions that the PSC and DNR must address. It is likely that applicants will be called upon to provide additional information and data to support their applications throughout the review process. Applicants will be expected to respond to all staff inquiries made subsequent to a determination of completeness in a timely, complete, and accurate manner.

An applicant must upload a transmittal letter to the PSC ERF verifying that all application documents have been submitted. PSC and DNR staff will examine CPCN applications for completeness under the 30-day completeness review period once the transmittal letter is received. If an application is deemed incomplete, the applicant must submit a new transmittal letter with their refiled application to indicate all documents comprising the resubmission have been filed.

Filing the Application

An applicant should notify PSC of its intent to file an application with PSC no later than 30 days prior to the submission. Notice of intent to file can be sent to PSCDLDERAConstruction@wisconsin.gov.

For CA applications, check with PSC case coordinator and the DNR during the pre-application process to determine how the application should be filed and how many paper copies are necessary. Electronic versions of all submitted application materials must be sent to both the PSC and DNR. Submit, via ERF, a transmittal letter, verifying to the PSC and DNR that all application materials have been uploaded.

For CPCN applications, a two-step process must be followed.

Step 1 – Initial CPCN Applications

- Send to the PSC case coordinator and DNR Office of Energy project manager the number of paper copies of the non-confidential portion of the application agreed upon by PSC staff and the applicant.

- Coordinate with PSC[2] and DNR[3] to submit the following:
  - The entire non-confidential portion of the application in Adobe Acrobat (*.pdf) format.
  - Microsoft Excel versions of tables.
  - GIS data that support all maps submitted in the application and/or requested in these filing requirements.[4] **Submitted GIS data should be shapefiles only. Do not provide geodatabases or aerial imagery raster data.**

- File with PSC Records Management, using confidential material handling procedures, electronic versions of confidential portions of the application including spreadsheets, NHI unredacted materials, etc., as described in the PSC ERF Filing Policy/Procedures guide.[5]

Post to the PSC ERF, all application materials both confidential and non-confidential, including all materials provided to DNR. Submit, via ERF, a transmittal letter, verifying to the PSC and DNR that all application materials have been uploaded.

Prior to submitting any CEII related to the project, contact the Commission staff case coordinator for instructions regarding how to do so

Step 2 – After CPCN Application Is Deemed Complete

The PSC may require as many as five complete paper applications. Again, check with the PSC case coordinator to verify the appropriate number of paper applications. Applicants are encouraged to reuse applicable portions of the initial applications in order to create the required number of complete paper applications. Upon the PSC declaring the application to be complete, submit the following:

- Send to the PSC case coordinator and DNR Office of Energy project manager, paper versions of the non-confidential portions of the complete application. Again, the PSC encourages the reuse of unchanged portions of the initial applications.
- Send to the PSC case coordinator and DNR Office of Energy project manager, paper copies of the confidential portions of the application. Do NOT send paper copies of CEII material.
- Coordinate with PSC[3] and DNR[4] to electronically submit the following:

[2] Contact the PSC Case Coordinator of the docket for instructions.
[3] Contact the Water Reg/Zoning Specialist at DNR Office of Energy assigned to your application for instructions.
[4] Consult Section 1.9 of this document for a detailed description on how this data should be organized.
[5] Contact PSC Records Management Unit at pscrecordsmail@wisconsin.gov with any questions on filing confidential materials.

  - The non-confidential portion of the complete application in Adobe Acrobat (*.pdf) format.
  - Microsoft Excel versions of the PSC- and DNR-required tables.
  - Any updated GIS data or modeling data.
- Using confidential material handling procedures, as described in the ERF Filing Policy/Procedure Guide, file with PSC Records Management, confidential appendices, spreadsheets, etc.

Post to ERF the revised complete application (confidential and non-confidential).

Prior to submitting any CEII related to the project, contact the Commission staff case coordinator for instructions regarding how to do so.

Public Copies of CPCN Applications

Electronic copies of the initial application and of the complete application must be sent to the clerks of municipalities and towns in the project area, and to the main public libraries that serve the project area (Wis. Stat. § 196.491 and Wis. Admin. Code § PSC 111.51).

Within 10 days of filing a CPCN application, the Commission shall send electronic copies of the application to municipalities, towns, and libraries. At the request of a clerk or library, a paper copy of the application must be sent. Under Wis. Admin. Code § PSC 111.51, the Commission may fulfill this obligation by directing the applicant to conduct the mailings. In this case, proof of delivery will be required. The application must be accompanied by an approved statement on the initial page of the electronic document explaining that this is an initial application and that it may differ from the application that the Commission deems complete.

Within 10 days after the Commission determines that an application is complete or the application is considered to be complete, the Commission must send an electronic copy of the complete application to municipalities, towns, and libraries. At the request of a clerk or library, a paper copy of the application must be sent. The Commission may fulfill this obligation by directing the applicant to conduct the mailings. In this case, proof of delivery is required.

Public Copies of CA Applications

There are no requirements for distributing copies of the CA applications to the public.

Contact for Questions

If you have questions about the Application Filing Requirements, visit the PSC website at: https://psc.wi.gov/Pages/ForUtilities/Energy/FilingRequirements.aspx for information. Initial questions can be directed to the Environmental Review Coordinator listed on that website.

Application Filing Requirements
Electric Transmission Lines

A complete CPCN application will contain the information listed in this document. Exceptions will be documented during the pre-application consultation process. Information that an applicant believes does not apply to the proposed project may not be omitted without a showing as to why the information is not applicable. Applications should follow the organization and format of this Application Filing Requirements document (AFR).

If substation construction is part of the application, the substation application materials may be presented within the related sections of the larger application or as separate sections, provided the organization of the application remains clear and easy-to-understand. There is a separate AFR for substation construction.

Questions about the applicability of specific information requirements and the organization of the application should be discussed with PSC and DNR staff during pre-application consultation.

1. Project Overview

1.1. Identify the owners and investors of the proposed project including their names, addresses, and percent of ownership (Wis. Admin. Code § PSC 111.55(6)).

1.2. Provide contractual agreements between developer and utilities to construct, finance, lease, use or own transmission facilities.[6]

1.3. Describe the location of the proposed project and its end points, including the length of each proposed route.

1.4. Provide a list of all cities, villages, and townships and their respective counties that the proposed project, any associated facilities, and any potential construction activities would cross or potentially impact.

1.5. PSC Review

1.5.1. State if the application is for a Certificate of Authority (CA) or a Certificate of Public Convenience and Necessity (CPCN) under Wis. Stat. §§ 196.49 and 196.491.

[6] PSC confidential procedures may be used for the submittal of sensitive information.

1.5.2. Identify the expected type of Commission action under Wis. Admin Code § PSC 4.10.

1.5.3. State if the project qualifies for the CPCN exemption under Wis. Stat. § 196.491(4)(c)1m.

1.5.4. State if the applicant is seeking an expedited review for the project under Wis. Stat. § 196.491(3b)(a).

1.6. Project Details and Project Area Information

Provide general descriptions of each of the proposed routes and the project area, including the following:

1.6.1. Identify if the proposed project is new construction, rebuilding of an existing line, maintenance of an existing line, etc.

1.6.2. For new or expanded above-ground facilities, such as substations, provide the following:

1.6.2.1. Identify the type of new or expanded facility.

1.6.2.2. The location of the new or expanded facility.

1.6.2.3. The size and dimensions of the new facility or expansion of the existing facility, including any new or expanded driveways.

1.6.2.4. Total size of the parcel the new or expanded facility would be placed, and the orientation of the facility within the parcel.

1.6.2.5. State if the applicant owns the parcel or is in negotiations for purchase of the parcel.

1.6.2.6. The current land use and zoning of the parcel.

1.6.2.7. Construction procedures to build or expand the facility.

1.6.2.8. Describe associated permanent storm water management features that would be constructed, or expansion of or modification to existing storm water treatment facilities. Identify the locations of the point(s) of collection and discharge.

1.6.3. Generalized geology, topography, land cover, and land use.

1.6.4. Any special or unique natural feature or cultural resources. In this section, include a complete list of special or unique resources (by route) that could be impacted by the proposed project. 'Special' or 'unique' may refer to any natural or cultural resource/feature that has been identified by a formal entity that is not otherwise referenced in these AFRs. (Examples include

Important Bird Areas, Driftless Area, conservation areas, Niagara Escarpment, etc.)

1.6.5. Areas of residential concentrations and urban centers.

1.6.6. Transmission configurations (such as single-circuit or double-circuit with existing line, overhead or underground, conductor replacement or new construction, etc.). When describing transmission configurations also include the range of structure heights, types of structures, range of conductor heights, types of foundations, range of span lengths, expected life of facilities, etc. If there are existing facilities, identify the differences in size of the existing facilities compared to the proposed facilities.

1.6.7. The length, width, and area of the proposed project right-of-way (ROW) for each proposed route alternative. Explain the relationship to the existing ROWs, for example new ROW, partially overlapping existing transmission ROW, completely within existing ROW, etc.

1.7. Other Agency Correspondence/Permits/Approvals

1.7.1. Provide copies of all official correspondence between the applicant and all state, federal, or local government agency as described in the Introduction, page v.7

1.7.2. Provide a list of all state and federal permits/approvals that would be required for this project and their status. Include the approximate date the permit was/would be submitted and the approximate date a decision is expected (if known).

1.7.3. Local Permits

1.7.3.1. For CA applications, provide a list of all local permits and/or ordinances that apply to the proposed project and the status of those permits.

1.7.3.2. For CPCN applications and applications filed under the Wis. Stat. § 196.491(4)(c)1m exemption, provide a list of local permits and/or ordinances that would apply to the proposed construction activities if the exemption did not apply.

1.7.4. Railroad ROWs

1.7.4.1. Identify route segments that cross or share railroad ROWs.

1.7.4.2. Identify the owners of the railroad ROWs.

[7] The applicant must continue to submit copies of all official correspondence between the applicant and any federal, local government, or other state agency while the application is under review.

1.7.4.3. Identify abandoned railroad ROWs that are crossed or shared by route segments.

1.7.4.4. Provide documentation, if possible, that the proposed ROW crossing or sharing is acceptable to the company.

1.7.5. Pipeline ROWs

1.7.5.1. Identify route segments that cross or share any pipeline ROWs.

1.7.5.2. Identify the owners of the ROW property or easements, as applicable.

1.7.5.3. Provide documentation, if possible, that the proposed ROW crossing or sharing is acceptable to the company.

1.7.5.4. Provide documentation for all discussions with pipeline operator pertaining to maintaining safety and reliability of the pipeline during transmission construction.

1.7.6. Wisconsin Department of Transportation (WisDOT) ROWs

1.7.6.1. Identify route segments that cross or share WisDOT ROW easements and/or properties.

1.7.6.2. Include a description of the potential general routing and siting issues identified in consultations with WisDOT (by route alternative).

1.7.6.3. Supply documentation, if possible that the proposed ROW crossing or sharing is acceptable to the agency.

1.8. Construction Schedule and Sequence

1.8.1. Provide the anticipated general construction schedule, identifying any potential seasonal or regulatory construction constraints. If the route is to be constructed by segment or spread, provide separate construction schedules for each segment or spread. Include a timeline showing construction activities from beginning of construction to in-service. Identify all critical path items.

1.8.2. Generally discuss any generation or transmission outage constraints that may have to be accommodated. Include any documentation pertaining to discussions with Midcontinent Independent System Operator (MISO) or generation facility owners about such constraints.

1.8.3. Indicate how many construction spreads, if any, will likely be used during construction, and the approximate length of each construction spread in miles.

1.8.4. Describe the construction sequence for any given construction spread from commencement of construction through completion of construction, and how those construction spreads relate to each other (i.e. built at same time, certain activities such as clearing conducted on different spreads at the same time).

1.9. Project Maps

Provide route maps that use the best and most recent data available. Maps must clearly portray the project in a format and scale that is unambiguous and easy to understand. Labels and symbology used on the maps must be clearly visible. Boundary information which is unknown or assumed at the time of submittal should be symbolized differently and discussed in the application. The scale of the maps, the applicable project data, the number of map sets necessary to show all relevant data, and whether they will be submitted electronically or on paper will be discussed during pre-application consultations.

- Aerial imagery not more than three years old[8]
- Project Data
    - Alternative routes/segments evaluated but not proposed.
    - Proposed and Alternative routes and segments (subsegments also, if used for magnetic field analyses).[9]
    - Proposed and Alternative ROW.
    - Segment nodes.
    - Proposed associated facilities, including new substations and associated storm water management features.
    - Proposed access roads, including off-ROW access.
    - Proposed laydown areas.
    - If any portion of the line will be underground, indicate the underground installation method (directional bore, open-cut trench, etc.).
- Environmental Data
    - Wetlands and waterways – Refer to Section 8.3 for mapping details.
    - Soils.

[8] Aerial imagery raster data is no longer required to be submitted with GIS data. Do NOT submit aerial imagery raster data.
[9] If possible, GIS segment routes should use the pole alignments as opposed to centerline of the ROW. Identify which was used in the GIS spreadsheet (Section 1.10.2).

- NHI rare species occurrences (confidential)[10].
- Topographic maps.
- Floodplains.

- Parcel Data
  - Private properties (GIS data cross-referenceable with mailing lists).
  - Public properties (symbolized differently than private properties), including parks and trails.
  - Tribal or other types of properties.
  - Political subdivision boundaries.
  - Township, range, section.
- Land Use
  - Land cover (as used in PSC Table 2).
  - Zoning.
  - Active mines and quarries.
  - Sensitive sites (e.g. daycare centers, schools, hospitals, cemeteries, etc.).
  - Confined animal operations[11] within one-half mile of the proposed centerline.
  - Agricultural buildings within 300 feet of the proposed centerline.
  - Airports, airstrips (public and private).
  - Communication towers.
  - Recreation areas, trails.
- Utility/Infrastructure Data
  - Existing transmission, pipelines, and other applicable infrastructure.
  - Existing distribution lines that would be modified or relocated due to the proposed project or are adjacent to proposed routes.
  - Roads, highways, interstates.

[10] NHI data is no longer required to be submitted with GIS data. Do NOT submit NHI GIS data.
[11] Any farming operation that has animals confined in building(s). Not limited to a specific number of animals or the DNR's definition of Concentrated Animal Feeding Operations (CAFO).

- Applicable infrastructure ROWs (*e.g.,* DOT, pipeline, electric distribution, electric transmission, railroad, trail).

1.10. GIS Data (see *Introduction*, *page iv*)

Provide GIS data with attributes as listed and described below. GIS attribute table information should be clearly labeled to identify fields and feature names. GIS data should be shapefiles only. Do not provide geodatabases or aerial imagery raster data.

1.10.1. Project Area Boundary (polygon).

1.10.2. Alternative routes/segments evaluated but not proposed (line).

1.10.3. Proposed and Alternative routes and segments (line). Include subsegments if used for magnetic field analyses.[12,13]

1.10.4. Portions of routes that would be installed underground (line). Include methods such as directional bore, open-cut trench, etc.

1.10.5. Proposed and Alternative ROW (polygon).

1.10.6. Segment nodes (point).

1.10.7. Proposed associated facilities, including new substations and associated storm water management features (polygon).

1.10.8. Proposed access roads, including off-ROW access (line). Include approximate width in feet.

1.10.9. Proposed laydown areas (polygon).

1.10.10. Temporary matting (polygon).

1.10.11. Electric distribution lines within one mile of the project area (line). Include voltage of each line and phases present (e.g. A, B, and/or C).

1.10.12. Electric transmission lines within one mile of the project area identified by voltage (line). Include voltage.

1.10.13. Natural gas high-pressure pipelines within one mile of the project area (line).

1.10.14. Delineated wetlands in the project area (polygon). See Section 8.

1.10.15. Field identified waterways in the project area (polygon). See Section 8.

1.10.16. Land cover/Vegetative communities in ROW (polygon). See Section 5.4.

[12] If possible, GIS segment routes should use the pole alignments as opposed to centerline of the ROW. Identify which was used in the GIS spreadsheet (page iv).

[13] If applicable, provide route centerline GIS data that identifies all routes divided into segments that are consistent with the IDs of records in PSC Impact Table 1 - General Route Information and PSC Impact Table 2 - Land Cover.

1.10.17. All parcels within 300 feet of route centerlines (polygon). Include landowner name and address.

1.10.18. All residences within 300 feet of the route centerlines (point). Include landowner name and address.

1.10.19. All industrial/commercial facilities within 300 feet of the route centerlines (point). Include facility name, ownership name, and address.

1.10.20. All sensitive sites, including schools, daycares, hospitals, nursing homes, places of worship, and cemeteries within 300 feet of the route centerlines (point). Include facility name, ownership name, and address.

1.10.21. Confined animal operations[14] (point):

- All confined animal operations within and up to 0.5 miles of the project route centerlines.
- For each confined animal operation provide attribute data that identifies the type of animal(s), the number of confined animals, and the name of the landowner.

1.10.22. All other buildings within 300 feet of the route centerlines (point). Include type of building.

1.10.23. All public lands within one mile of the project area boundary (polygon).

1.10.24. All properties enrolled in the Conservation Reserve Program within 300 feet of the route centerlines (polygon). Information would be dependent on authorization from landowners to release CRP information. Work with PSC staff if any information is considered sensitive and/or confidential.

1.10.25. All properties known to be enrolled in a conservation easement within 300 feet of the route centerlines (polygon). Include entity that holds rights to conservation easement (e.g. state/federal government, private land trust, etc.).

1.10.26. All communication infrastructure within one mile of the route centerlines (point). Include radio, television, microwave towers, and any NEXRAD or Doppler weather radar installations.

1.10.27. All public and private airport runways and landing strips within and up to 10 miles of the project area boundary (line). Include facility name and public status.

1.10.28. Local zoning designations within and up to one mile of the project.

[14] Any farming operation that has animals confined in building(s). Not limited to dairy operations, a specific number of animals, or the DNR's definition of Concentrated Animal Feeding Operations (CAFO).

1.11. Mailing Lists

1.11.1. Provide a Microsoft Excel mailing list in an acceptable format that is able to be cross-referenced to GIS parcel data as described in the Introduction, pages iii-iv.

1.11.2. Identify the source of the information contained in the mailing lists and discuss the potential for inaccuracies in the data set (new development, poor data, etc.).

1.11.3. Mailing lists must include:

1.11.3.1. All property owners within 300 feet of a proposed transmission centerline and associated facilities. List should include properties on both sides of a roadway regardless of distance.15

1.11.3.2. All public property owners such as schools or other government entities within 300 feet of a proposed transmission centerline and associated facilities. List should include properties on both sides of a street or road.

1.11.3.3. The clerks and chief executive officers of the counties, towns, villages, or cities in which the routes or other proposed facilities would occupy. Also include on this list the main public library in each county the proposed facilities would occupy.

1.11.3.4. The appropriate Regional Planning Commission(s).

1.11.3.5. Applicable state and federal agencies.

1.11.3.6. Tribal government representatives for Native American Tribes that hold off-reservation treaty rights in Ceded Territory. This only applies to projects within the following counties: Ashland, Barron, Bayfield, Burnett, Chippewa, Clark, Douglas, Dunn, Eau Claire, Florence, Forest, Iron, Langlade, Lincoln, Marathon, Marinette, Menominee, Oconto, Oneida, Polk, Portage, Price, Rusk, Sawyer, Shawano, St. Croix, Taylor, Vilas, Washburn, and Wood County.

The following Tribes hold off-reservation treaty rights in Ceded Territory:

- Bad River Band of Lake Superior Chippewa Indians
- Lac Courte Oreilles Band of Lake Superior Chippewa Indians
- Lac du Flambeau Band of Lake Superior Chippewa Indians
- Red Cliff Band of Lake Superior Chippewa Indians

[15] The term “roadway” includes streets, highways, interstates, etc.

- St. Croix Chippewa Indians of Wisconsin
- Sokaogon Chippewa Community (Mole Lake Band of Lake Superior Chippewa Indians).

2. Project Need Analyses

2.1. Project Need

Describe the purpose or need for the project with supporting data and identify the MISO category and type of project, as applicable.

2.2. Transmission Network Alternatives

Provide transmission system alternative studies, including alternative costs, based on current North American Electric Reliability Corporation (NERC) and MISO transmission planning and operating standards.

2.2.1. Describe the Proposed Solution

2.2.1.1. Identify and describe any transmission line facilities that would be added or altered for this project. Include one-lines where appropriate.

2.2.1.2. Identify and describe any substation facilities that would be added or altered for this project. Include electric schematics where appropriate. Substation Filing Requirements may also apply.

2.2.1.3. Describe any contingencies resolved by implementation of the proposed solution, including thermal and voltage violations of associated NERC standards.

2.2.2. Discuss the viable Alternatives considered.

2.2.3. For the discussion of the Proposed Solution and viable Alternatives include the following as appropriate:

2.2.3.1. Provide relevant regional studies of transmission network solutions.

2.2.3.2. Provide details of the reliability and performance benefits of each network solution studied, as available.

2.2.3.3. Supply the electrical losses for each alternative, peak MW and annual GWH estimates.

2.2.3.4. For generator interconnections, supply the detailed short circuit, stability and thermal analysis studies that have been performed. There must be some initial studies performed in order for the application to be complete. Provide the costs associated with any interconnection upgrades and how those costs are shared. Provide

the MISO interconnection queue number for any generator interconnection, as well as any MISO studies, such as definitive planning phase (DPP) or similar.

2.2.3.5. For new distribution substations, supply the information from the Load Serving Entity on the need and alternatives considered. Those issues include existing conditions, voltage profiles, line capacities, outages, load growth, alternative substation feed pickup capability, etc.

2.3. Local Transmission, Distribution, and Distributed Resource Alternatives

2.3.1. Describe local transmission, distribution, and distributed resource alternatives that have been studied and rejected for the proposed project. Local alternatives can include but are not limited to:

- An upgrade of existing transmission circuits with larger capacity conductors
- Installation of capacitor banks
- Installation of new substation equipment
- New operating guides
- Smaller and less expensive line/s in other locations
- Distribution networking and upgrades
- Distributed resources, including solar, battery storage and other distributed resources alone or in combination

2.3.2. Explain why the options were not selected.

2.4. Non-transmission Option*s*

Discuss the potential for non-transmission options to the identified problem, as prioritized in Wis. Stat. §§ 1.12(4) and 196.025(1)(ar).

Energy conservation and efficiency

2.4.1. Noncombustible renewable energy resources

2.4.2. Combustible renewable energy resources

2.4.3. Advanced nuclear energy using a reactor design or amended reactor design approved after December 31, 2010, by the U.S. Nuclear Regulatory Commission

2.4.4. Nonrenewable combustible energy resources in the following order:

2.4.4.1. Natural gas

2.4.4.2. Oil or coal with a sulphur content of less than 1%

2.4.4.3. All other carbon-based fuels

2.5. No-build Options

Discuss no-build options and their potential electrical supply and environmental impacts. Emphasize impacts to electric reliability if the proposed project is not constructed.

2.6. Energy Conservation and Efficiency and Demand Response

Discuss the feasibility of energy conservation and efficiency and demand response to reduce, alter, or eliminate the need for this project. Impacts from energy efficiency and demand response may not be feasible for projects that do not directly affect the amount of energy generation or consumption.

If it is feasible that energy conservation and efficiency and load response could reduce, alter, or eliminate the need for this project, provide an analysis that includes:

2.6.1. A description of the existing energy conservation and efficiency and demand response programs and services available to customers in the project area, including any utility-operated demand response or voluntary energy efficiency programs.

2.6.2. An indication of the amount of additional energy efficiency and demand response savings needed to reduce, alter, or eliminate the need for this project. Clearly identify and distinguish the amount of energy efficiency and demand response savings assumed to be achieved through Focus on Energy and utility programs from the additional energy efficiency and demand response needed to reduce, alter, or eliminate the need for this project.

2.6.3. A discussion of the feasibility of achieving the level of energy efficiency and demand response identified in Section 2.6.2. Feasibility analysis should take into account:

- A clear definition of the energy efficiency and demand response programming options considered;
- The cost-effectiveness of available energy efficiency and demand response options, relative to the costs per unit of the proposed project;
- The total energy efficiency and demand response savings required to reduce, alter, or eliminate the need for the project, and the corresponding financial investment required to achieve those savings; and

- The ability of utilities to implement new or expanded programs to achieve available savings.

Provide analysis to address multiple different scenarios that distinguish between options for reducing, altering, and eliminating the project need. Please provide modeling and/or spreadsheet analysis to fully assess the cost comparison between the proposed project and all alternative scenarios analyzed.

2.7. For Market Efficiency Projects

Provide the scenario(s) analyses that details adjusted production cost benefits or other market attributes that show the cost and the benefits of the proposed project and/or alternatives. Benefits should include a present value analysis with cumulative tables for the life of the project.

2.8. Modeling Information

2.8.1. For all projects submit network modeling information from PSSE or PowerWorld for steady-state power flow solutions. If submitting data from PSSE, submit the *.raw file. If submitting data from PowerWorld, submit the *.pwb file.

2.8.2. On an individual application basis, as requested by the assigned engineer, provide the computer network simulation(s) data input files, output files, and/or output summaries.

2.8.3. Provide any additional modeling, including PROMOD or similar production cost models, to demonstrate any economic benefits associated with the project. Coordinate with PSC16 to electronically submit the the generation capacity expansion modeling data set(s). In addition to filing the production cost modeling data set(s), a document describing the filing and making any necessary request for confidential treatment should be filed on the Commission's ERF system17.

2.9. Area Load Information

Submit historical peak load by substation, if available, for the study area for at least the past ten years. In the cases where coincident peak load data is not available by substation, provide annual peak load data by substation. Indicate for each substation whether the load data is coincident peak or annual peak. Explain each component of the forecasted load with quantitative detail. Any changes in the projected growth rates over the forecast period should be fully explained. Area load information requirements will be discussed at the pre-application consultations. Based on the need and scope of the proposed project, different historical data may be required.

[16] Contact PSC Case Coordinator for instructions.
[17] Contact PSC Records Management staff at PSCRecordsMail@wisconsin.gov for specific filing requirements.

2.10. Generation and Resource Retirements

Discuss any publicly announced generator retirements or additions of electric generating units larger than 50 MW in the MISO load resource zone in which the project is being proposed for a period of five years prior to project energization. Describe how those generator retirements or additions may affect the need for the proposed project. Discuss any generator additions larger than 50 MW with signed Generator Interconnection Agreements and/or Interconnection Service Agreements in the project study area. Describe how those generator additions may affect the need for the proposed project.

2.11. Regional Transmission Organization Information

2.11.1. For regional projects, supply the cost benefit analysis and the likely cost allocation per the Midwest ISO's filings.

2.11.2. Description of applicable transmission tariffs.

2.11.3. Provide transmission service agreements, if applicable.

3. Magnetic Fields

Project specific magnetic field data will be discussed during pre-application consultations. The following information should be provided in Table 6 or elsewhere in the application. All tabulated data for all segments should provide magnetic field data to a minimum distance of 300 feet from the centerline of the proposed transmission segment for each unique segment. For rebuilding or reconductoring existing transmission lines or where the proposed line would be double-circuited with an existing line or built next to an existing line (including distribution lines), provide the magnetic field data of the current line and the magnetic field data with the proposed project in place (Section 3.1.2). If asymmetric magnetic profiles are anticipated, the full magnetic field profile may be required for both sides of the centerline as determined during the pre-application consultation process.

3.1. Submit the estimate magnetic field data in PSC Table 6 from the following magnetic field profiles:

3.1.1. Predominant transmission line configurations proposed for the project (H-frame, single-pole delta, double-circuit, etc.).

3.1.2. Each unique structure type or circuit configuration (new and existing line) with the exception of dead-end structures adjacent to substations in areas with high residence densities or other sensitive populations.

3.1.3. Each existing line that would be affected by the proposed transmission line and a post-construction scenario that incorporates the new and the existing lines.

3.1.4. Each set of circuit configurations for routes that would have multiple adjacent underground circuits.

3.2. Includes the following information in PSC Table 6 for each estimated magnetic field scenario.

3.2.1. Estimate the proposed lines at 80 percent and at 100 percent of peak load for one-year post-construction and ten years post-construction. For existing lines, use present day loadings to estimate the magnetic fields levels.

3.2.2. Provide expected current levels for 80 and 100 percent of peak load at one- and ten-years post-construction.

3.3. Provide all assumptions used to model magnetic field levels including:

3.3.1. Phase ID and angles.

3.3.2. Pole design diagram that includes the dimensions of pole arms, dimensions of conductor locations, horizontal distance from the pole to the conductors, and the distance of conductors from the ground at the pole.

3.3.3. Height of lowest conductor(s) at mid-span.

3.3.4. Depth from ground surface to circuits, for underground construction.

3.3.5. Estimated background magnetic field caused by the Earth in the area of each segment.

4. Project Costs

Cost tables should be based on the projected in-service year. Tables must be submitted in a Microsoft Excel format, in addition to Adobe Acrobat (*.pdf) format.

4.1. Transmission Route Cost Estimate Tables

- Provide table(s) detailing the projected total costs for each proposed route broken into the major categories listed below. Identify if a specific accounting treatment (i.e. allowance for funds used during construction) is being requested. If yes, identify the amount requested and identify how the amount was determined. Identify if any additional accounting treatments have been authorized, and if so, identify the treatment requested and the docket in which the treatment was authorized. Each major category of costs should be broken down into logical components and/or contracts. If portions of the route(s) are to be constructed underground, those costs should be separated from overhead construction costs. Substation costs should also be separated out (see Substation Application Filing Requirements).

    - Material Costs
    - Labor Costs

- Other Costs
- Pre-certification Costs
- High-Voltage Transmission Impact Fees
- Operation and Maintenance Costs

4.2. For 345 kV projects: Provide a summary table of total costs (transmission and substation) for each proposed route, broken down by the following voltage classes.

- 345 kV
- Less than 345 kV
- Distribution

5. Routing and Siting Information

5.1. Describe the factors considered in the applicant's evaluation of potential routes and locations for the transmission line and its associated facilities.

5.1.1. Identify route(s) that were considered and explain why those corridors were or were not chosen. Provide a map of these routes, if available.

5.1.2. Describe the use of any weighting criteria used to evaluate potential routes.

5.1.3. Describe how the transmission line siting priorities in Wis. Stat. § 1.12(6) were considered.

5.1.4. Describe contacts or consultations held with government entities, landowners, and other interested parties prior to application submittal regarding alternative project routes.

5.1.5. Identify any issues and concerns raised.

5.1.6. Describe how the issues and concerns were addressed in the selection of the proposed routes.

5.2. Easements and existing utility infrastructure

If the proposed project contains segments that would share part or all of an existing transmission ROW, submit the following for each of those segment(s):

5.2.1. Identify if existing easements would be modified to accommodate the proposed facilities, or if new easements would be pursued. Provide an example of a standard easement agreement that would be utilized for the proposed project, if approved.

5.2.2. Describe changes to the location or width of existing electric ROW.

5.2.3. Provide a description of the existing ROW that would be shared with the proposed project and identify the potential issues and impacts that may be encountered by constructing the proposed facilities.

5.2.4. State if the existing easements are to be renegotiated and/or rewritten. If so, indicate the reason (for example language modernization, change in easement size, change in transmission, etc.).

5.3. Route Segments

5.3.1. If the route(s) has been broken up into segments, provide the number of, names of, and total length of each segment for each proposed route.

5.3.2. For each route segment describe and/or show the following. Figures and/or illustrations may be necessary to adequately convey the following:

5.3.2.1. Type and dimensions of structure and foundation (such as underground/overhead, single-pole/H-frame, direct embed/concrete caisson, type of material, typical span length, etc.)

5.3.2.2. Transmission configuration (single-circuit, double-circuit, etc.)

5.3.2.3. Conductor information (for example size, voltage, etc.)

5.3.2.4. Height of structures and span length

5.3.2.5. Number of structures

5.3.2.6. Existing transmission affected by proposed project

5.3.2.7. Existing distribution affected by the proposed project

5.3.2.8. ROW size. For rebuild project to be built in the same ROW as the existing line, indicate if an off-set is needed, and if so, the size of the offset.

5.3.2.9. Shared ROW configuration

5.4. PSC Impact Tables

Complete the PSC Impact Tables 1-7 (identified below) in the Microsoft Excel spreadsheets provided. For each table, indicate the type and date of source material and the methods used to determine the table inputs. All proposed facilities should be included in these impact tables, for example off-ROW access roads, laydown yards, substations, etc. Instead of filing each table as a separate file, applicants are encouraged to submit one excel file that contains separate sheets for each table.

- Table 1 – General Route Impacts
- Table 2 – Land Cover

- Table 3 – Federal, State, Local, and Tribal Lands
- Table 4 – Distances of Schools, Daycare Centers, and Hospitals from ROW Centerline
- Table 5 – Distances of Residential Buildings from ROW Centerline
- Table 6 – Estimated Magnetic Field Data
- Table 7 – Route Impact Summaries

5.5. Construction Impacts

5.5.1. Discuss the proposed construction sequence for both overhead and underground lines in the project.

5.5.2. Describe the construction impacts associated with each phase of construction, including:

5.5.2.1. The size of excavations for foundations or other underground structures

5.5.2.2. The type of construction machinery that would be used

5.5.2.3. The construction disturbance zone, if different from the ROW

5.5.2.4. How spoil materials would be managed on and off-site

5.5.2.5. If any underground line installation will occur, identify the installation method(s), such as directional bore, open-cut trench, plow, etc.

5.5.3. For unique construction methods (e.g., directional boring, jack and bore, helicopter, vibratory caissons, etc.), provide the following:

5.5.3.1. The location and reason for the construction method

5.5.3.2. A description of the construction method

5.5.3.3. The temporary construction needs and limitations such as boring pits, staging areas, frac-outs, timing, weather, etc.

5.5.4. Describe any special construction methods that would be used in/around agricultural lands, forest lands, grasslands, surface waters, or wetlands.

5.5.5. Describe the dewatering method(s) that may be utilized during excavation activities, such as pit/trench dewatering or high-capacity wells. Identify treatment methods that would be utilized to treat the discharge, and the discharge location.

5.6. Identify and describe the number, location, footprint, and existing land use of staging areas and any additional temporary workspace.

5.7. Off-ROW Access Roads

5.7.1. Identify those areas along the proposed routes and segments where off-ROW access roads may be required. Provide the number of off-ROW access roads proposed, and an identifying name or number for each off-ROW access road.

5.7.2. For each route, provide the dimensions (length and width) and construction method, including if any modifications would be needed to utilize the off-ROW access roads, such as road widening, road fill placement, or tree clearing.

5.7.3. Discuss the reasons for the necessity for off-ROW access roads such as topography, rivers/wetlands, etc. If protection of a natural resource is a reason, discuss how the resource would be protected during construction and operation of the proposed project.

5.7.4. Provide quantitative land cover information for off-ROW access roads similar to the information provided in PSC Impact Tables.

5.7.5. If the off-ROW access roads would be modified post-construction, provide details.

6. Natural Resource Impacts

Refer to Section 8 for describing locations of and impacts to wetlands and waterways, and Section 9 for describing locations of and impacts to endangered resources.

6.1. Forested Lands

Forested lands[18] are defined as an upland area of land covered with woody perennial plants reaching a mature height of at least six feet tall with definite crown (closure of at least 10%). For the purposes of these AFRs, forested lands would not include narrow windbreaks located between agricultural areas, but would include shrublands and forested riparian areas.

6.1.1. For each route segment describe the forested lands that would be impacted by the proposed project. Include the following information in the description.

- Type of forest,
- Dominant species,

[18] Forested lands definition adopted from Wiscland 2 Land Cover User Guide 2016 accessed at: https://p.widencdn.net/8ghipa/Wiscland_2_User_Guide_September_2016

- Average age, size of trees,
- Ownership (private, county, etc.),
- Use (recreation, timber, riparian habitat, etc.),
- Timing of clearing activities, and;
- Equipment to be used.

6.1.2. Managed Forest Law (MFL) and Forest Crop Law (FCL)

6.1.2.1. Identify properties within proposed ROWs that are enrolled in the MFL or FCL programs. For properties enrolled in MFL, include the anticipated amount of forested areas that would be cleared on each property.

6.1.2.2. Discuss how the proposed project would affect the properties enrolled in the MFL or FCL programs and how landowners would be compensated for that impact.

6.1.3. Provide specific details for mitigating or minimizing construction impacts in and around forested lands.

6.2. Grasslands

Grasslands[19] are defined as lands covered by non-cultivated herbaceous (non-woody) vegetation predominated by perennial grasses and forbs.

6.2.1. For each route segment describe the grasslands that would be impacted by the proposed project. Include the following information in the description.

- Type of grassland (prairie, pasture, old field, etc.),
- Dominant species,
- Ownership (private versus public), and;
- Use (agricultural, non-productive agricultural, recreation, natural area, etc.)

6.2.2. Provide specific details for mitigating or minimizing construction impacts in and around grasslands.

6.3. Invasive Species

6.3.1. Describe areas where invasive species or disease-causing organisms have been observed or are a concern for the construction of the project (e.g.,

[19] Grasslands definition adopted from Wiscland 2 Land Cover User Guide 2016 accessed at: https://p.widencdn.net/8ghipa/Wiscland_2_User_Guide_September_2016

invasive plants, oak wilt, emerald ash borer, etc.). State if invasive species surveys have occurred or will be conducted. If invasive species surveys have been conducted, provide documentation showing where surveys occurred and locations of invasive species found, indicating which species.

6.3.2. Describe mitigation methods that would be used to prevent the introduction and the spread of invasive plants or disease-causing organisms and comply with Wis. Admin. Code ch. NR 40, such as cleaning of machinery, etc.

6.4. Archaeological and Historic Resources

Confidential information includes only the specific location details of archaeological and human burial sites (e.g. maps or portions of text that describe precise locations such as USGS data).[20,21] Confidential information should be submitted on ERF as a confidential version in addition to a redacted public version. The Wisconsin Historical Society (WHS) can provide a list of qualified archaeologists, architectural historians, human burial specialists, or tribal preservation officers who may be required to perform steps of this review. Access to the Wisconsin Historic Preservation Database (WHPD) is required to complete this review. Access to WHPD is free at the WHS headquarters or can be used online for a fee. Depending on the outcome of this review, the Commission may be required to consult with the State Historic Preservation Office (SHPO). SHPO consultation may take up to an additional 30 days. The *Guide for Public Archeology in Wisconsin*, provides information about best management practices.[22] Work with SHPO to submit any updated records to WHPD (i.e. new reports, updates to sites or buildings, etc.).

6.4.1. Identify and provide a description as well as confidentially-filed maps of all WHPD properties (i.e., archaeological sites, historic buildings and districts, and human burial sites recorded on WHPD) within the project's area of potential effect (APE). Maps of archaeological and burial sites must be submitted confidentially. For archaeological and historic sites, the APE is comprised of the physical project area where any ground disturbing activity may occur (e.g. digging, heavy equipment movement, etc.). For historic buildings and districts, the APE consists of the distance that the project may be visible from the outside of the project area.

6.4.2. For WHPD properties within the APE, determine the boundaries, historic significance, and integrity of each resource as they apply to Wis. Stat. s. 44.36(2), which is the state register of historic places criteria. Additional

[20] Wis. Stat. 157.70(2)(a): Any information in the catalog related to the location of any burial site, the disclosure of which would be likely to result in the disturbance of the burial site or the cataloged land contiguous to the burial site, is not subject to s. 19.35(1).
[21] Wis. Stat. 44.48(1)(c): The director may keep any specific information regarding archaeological resources closed to the public if the director determines that disclosure of the information would be likely to result in disturbance of the archaeological resources.
[22] *Guide for Public Archeology in Wisconsin*. The Wisconsin Archeological Survey. August 2012.

field surveys may be required to make these determinations. In some cases, such as a landowner not granting land access, field surveys may instead be performed following the approval of a project.

6.4.3. Identify the potential project effects on each WHPD property within the APE that meets the Wis. Stat. s. 44.36(2) historic property criteria.

6.4.4. Describe modifications to the project that would reduce, eliminate, avoid, or otherwise mitigate effects on the WHPD properties within the APE that meet the historic property criteria. Examples of modifications include changes to construction locations, modified construction practices (e.g. use of low-pressure tires, matting, etc.), placement of protective barriers and warning signage, and construction monitoring.

6.4.5. For any human burial sites within the APE, contact WHS to determine whether a Burial Site Disturbance Authorization/Permit is required.

6.4.6. Provide an unanticipated archaeological discoveries plan. The plan should outline procedures to be followed in the event of an unanticipated discovery of archaeological resources or human remains during construction activities for the project.

6.4.7. Notify Wisconsin Tribal Historic Preservation Officers of any Native American human burial sites and significant prehistoric archaeological sites within the APE.

6.5. Conservation Easements

6.5.1. By route segment, for each route identify properties with conservation easement agreements.

6.5.2. For each conservation easement that would be crossed by a route, identify and discuss:

6.5.2.1. The holder and type of easement.

6.5.2.2. The conditions of the easement.

6.5.2.3. The approvals necessary to construct on the property.

6.5.2.4. The potential impacts to the landowner, including costs, penalties etc.

6.5.2.5. Whether the proposed project is consistent with the stated goals of the easement.

6.6. Restoration of Disturbed Areas

Provide a detailed re-vegetation and site restoration plan which discusses the following items:

6.6.1. Type of re-vegetation proposed for impacted areas (e.g. traditional restoration seed mixes, specialty native seed mixes for restoration of high quality habitats or habitat enhancement such as seeding with a pollinator species).

6.6.2. Vegetative monitoring criteria (number of post-construction years or percent cover achieved) and methods.

6.6.3. Invasive species monitoring and management.

6.7. Contaminated Sites

6.7.1. Using the Wisconsin Remediation and Redevelopment Database (WRRD), http://dnr.wi.gov/topic/Brownfields/WRRD.html, identify any contaminated sites (open and closed) within the project area and within two miles of the project area.

6.7.2. Using the Historic Registry of Waste Disposal Sites, http://dnr.wi.gov/topic/Landfills/registry.html, identify any Environmental Repair and Solid Waste disposal sites within the project area and within two miles of the project area.

6.8. Floodplains

6.8.1. Identify any work occurring in floodplains.

6.8.2. Discuss if impacts to the floodplain have been evaluated, and how impacts to the floodplain will be avoided or minimized.

6.8.3. Provide information on any discussions that have occurred with the application floodplain zoning authority, and how the project will comply with local floodplain ordinance(s). This requirement is not intended to preclude or otherwise modify Wis. Stat. §196.491(3)(i).

7. Community Impacts

7.1. Communication with Potentially Affected Public

7.1.1. List all attempts made to communicate with and provide information to the public.

7.1.2. Provide a description of public information meetings and who was invited.

7.1.3. Submit copies of public outreach mailings and handouts.

7.1.4. Provide electronic copies of written public comments (e.g., letters, emails, forms, etc.) submitted prior to filing the application with the PSC.

7.2. Community Issues

List and discuss the concerns that groups, local governments, and potentially impacted communities have raised about the project**.**

7.3. Land Use Plans

Provide relevant portions of land-use plans that describe future land uses potentially impacted by the project. (Land use plans include recreational plans, agricultural plans, etc.)

7.4. Agriculture

For each route, by route segment, provide the following:

7.4.1. Type of farming: pasture, row crops, or other type (e.g., orchards, tree plantations, cranberry bogs, etc.).

7.4.2. Any agricultural practices that may be affected by the project (construction or operation), such as irrigation systems, aerial seeding or spraying, windbreaks, organic farms, and drainage systems (tiles, ditches, laterals).

7.4.3. Identify the number and size of parcels enrolled in farmland preservation programs and permanent agricultural or conservation easements that may be affected by the proposed project.

7.4.4. Specific details for mitigating or minimizing construction impacts in and around agricultural lands.

7.4.5. Identify any parcels of land in the project area that may impact a Drainage District, and identify the Drainage District if applicable. The following applies when any part of a project impacts a Drainage District.

7.4.5.1. The County Drainage Board will need to be notified before undertaking any action, including any change in land use that will alter the flow of water into or from a district drain, increase the amount of soil erosion, or the movement of sediment solids to a district drain or affect the operation of the drainage district, or the costs incurred by the Drainage District. This applies to parcels of land that receive water from, or discharge water to a Drainage District, regardless of whether the land is included in the Drainage District.

7.4.6. Agricultural Impact Statement23 (AIS) – Wisconsin Department of Agriculture, Trade, and Consumer Protection (DATCP). If the project is a transmission line of 100kV or more, is longer than one mile, and would

[23] http://datcp.wi.gov/Environment/Agricultural_Impact_Statements/index.aspx

affect any properties used for agricultural purposes, submit one of the following, either:

7.4.6.1. A completed Agricultural Impact Notice (see DATCP web site and search "Agricultural Impact Notice" for appropriate form).

7.4.6.2. A release letter from DATCP stating that an AIS will not be written for this proposed project.

7.4.7. Neutral-to-Earth Voltage (NEV) and Induced Voltage

Provide for each route and/or route segment:

7.4.7.1. The number of confined animal dairy operations24 within one-half mile of the proposed centerline.

7.4.7.2. The number of agricultural buildings located within 300 feet of the proposed centerline.

7.4.7.3. Discuss NEV and induced voltage issues as they relate to the project and routes.

7.5. Residential and Urban Areas

7.5.1. Discuss anticipated impacts to residential/urban neighborhoods and communities such as ROW clearance and temporary construction impacts, including noise, dust, duration of construction, time-of-day of construction, road congestion, impacts to driveways, etc.

7.5.2. Discuss how anticipated impacts would be mitigated.

7.6. Aesthetic Impacts

7.6.1. Submit photo simulations of the project for public-valued views based on collaboration with the agencies.

7.6.2. Identify scenic roads within the project area and discuss the potential impact of the project.

7.7. Parks and Recreation Areas

7.7.1. Identify any parks and recreation areas or trails that may be impacted by the proposed project and the owner/manager of each recreation resource.

7.7.2. Provide any communications with these owners/managers.

[24] Any farming operation that has animals confined in building(s). Not limited to a specific number of animals, or the DNR's definition of Concentrated Animal Feeding Operations (CAFO).

7.7.3. Discuss how short- and long-term impacts to these resources would be avoided and minimized, including access.

7.8. Airports

7.8.1. Identify the location of all private and public airports/airstrips in the project area.

7.8.2. Describe the airports/airstrips, their runways (length, orientation), and type of use.

7.8.3. Describe any potential for impact to aircraft safety and intrusion into navigable airspace (runway approaches).

7.8.4. Identify potential construction limitations and permit issues.

7.8.5. Provide documentation of consultation with the WisDOT Bureau of Aeronautics and the Federal Aviation Administration.

7.9. Communication Towers

7.9.1. Discuss any potential interference to the function of communication towers within the project area by the proposed project.

7.10. Community Income from High-Voltage Transmission Impact Fees

7.10.1. Provide an estimate of all fee payments that must be made to the Department of Administration as required under Wis. Stat. § 196.491(3g).

7.10.2. Identify which components of the total project cost were used as the base cost and how the fees were calculated.

7.10.3. Provide estimates of one-time and annual payments that would be made to each affected city, village, town, or county.

8. Waterway/Wetland Permitting Activities

This section covers information required by DNR for wetland and waterway permits. The following subsections apply to all proposed project sites or routes. These sections should be consistent with the wetlands and waterways included in DNR Tables 1 and 2 and associated wetland and waterway maps. See the Wetlands and Waterways section of the Introduction portion of this document on what to include in DNR Tables 1 and 2 regarding waterway resources. Questions about this section should be directed to DNR Office of Energy's Energy Project Liaison staff.

8.1. Waterway Activities

This section should be consistent with the waterways included in DNR Tables 1 and 2 and associated maps. This section should apply to the proposed and alternative sites/routes (if applicable) and their associated facilities (for example, off-ROW access roads, staging areas, permanent structures, new substations and/or expansion

of existing substations (including associated driveways and permanent storm water management features to be constructed).

8.1.1. Identify the number of waterways present, including DNR-mapped waterways and additional field identified waterways. Also identify the number of times the waterway meanders in and out of the project area and indicate the number of waterway crossings.

8.1.2. Identify any waterways in the project route(s) that are classified as Outstanding or Exceptional Resource Waters, Trout Streams, Wild Rice Waters, and/or Wild or Scenic Rivers.

8.1.3. State if you are requesting DNR staff perform a navigability determination on any of the DNR mapped waterways and/or field identified waterways that will be impacted and/or crossed by project activities. If a navigability determination is requested, provide the following information in a separate appendix with the application filing:

- A table with columns for:
  - The crossing unique ID,
  - Waterbody Identification Code (WBIC) for each waterway (found in the Surface Water Data Viewer or in the GIS data for the DNR mapped waterways),
  - Latitude and longitude for each crossing,
  - Waterway name,
  - Waterway characteristics from field investigation, and;
  - Any other pertinent information or comments.
- Site photographs, clearly labeled with the photo number, direction, date photo taken, and crossing unique ID. A short description of what the photo is showing, and any field observation must also be included in the caption.
- Aerial photograph review of multiple years, including historical photos.
- Project map showing the following:
  - Aerial imagery (leaf-off, color imagery is preferred),
  - DNR mapped waterways (labeled with their unique ID),
  - Field identified waterways (labeled with their unique ID),
  - The location of each site photograph taken (labeled with the photo number),

- The project area, and;
- Call out box/symbol for each DNR mapped waterway crossing where the navigability determination is requested (labeled with their unique ID).

8.1.4. Provide the following information:

8.1.4.1. How many waterway crossings are proposed to be traversed with equipment and how that crossing will be accomplished (i.e. placement of temporary clear span bridges (TCSB), use of existing bridge or culvert, driving on the bed, etc.).

8.1.4.2. How many structures are proposed to be placed below the ordinary high-water mark (OHWM) of a waterway. Indicate if structures are temporary or permanent.

8.1.4.3. Indicate if any other waterways would be impacted and/or crossed by other construction activities regulated under Chapter 30 Wis. Stats. (i.e. placement of a new storm water pond within 500 feet of a waterway, stream relocation, staging areas, placement of riprap, etc.).

8.1.4.4. For underground installation only: Indicate the amount of waterway crossings via underground installation and specify the installation method (i.e. X waterways will be bored, Y waterways will be trenched, etc.)

8.1.5. Provide the methods to be used for avoiding, minimizing, and mitigating construction impacts in and near waterways. This discussion should include, but not be limited to, avoiding waterways, installation methods (i.e. directional bore versus open-cut trenching or plowing), equipment crossing methods (i.e. for temporary access, the use of TCSB versus temporary culvert; for permanent access, the use of permanent bridge versus permanent culvert), sediment and erosion controls, invasive species protocols for equipment, etc.

8.1.6. For waterways that will be open-cut trenched, provide the following:

8.1.6.1. State if any waterways are wider than 35 feet (measured from OHWM to OHWM).

8.1.6.2. The machinery to be used, and where it will operate from (i.e. from the banks, in the waterway channel) and if a TCSB is needed to access both banks.

8.1.6.3. The size of the trench (length, width, and depth) for each waterway crossing.

8.1.6.4. Details on the proposed in-water work zone isolation/stream flow bypass system (i.e. dam and pump, dam and flume, etc.).

8.1.6.5. Duration and timing of the in-stream work, including the installation and removal of the isolation/bypass system and the trenching activity.

8.1.6.6. How impacts to the waterway will be minimized during in-water work (i.e. energy dissipation, sediment controls, gradually releasing dams, screened and floating pumps, etc.).

8.1.6.7. How the waterway bed and banks will be restored to pre-existing conditions.

8.1.7. For waterways that will be directionally bored, provide the following:

8.1.7.1. The location and size of any temporary staging and equipment storage.

8.1.7.2. The location and size of bore pits and their distance from waterways.

8.1.7.3. Provide a contingency plan for bore refusal and a plan for the containment and clean-up of any inadvertent releases of drilling fluid (e.g. a frac-out).

8.1.8. For waterways that will have a TCSB installed across them, provide the following:

8.1.8.1. Description of the TCSB proposed, including dimensions, materials, and approaches. Verify the TCSB will completely span the waterway.

8.1.8.2. State if any waterways are wider than 35 feet (measured from OHWM to OHWM), and/or if any in-stream supports will be used.

8.1.8.3. State how the TCSB placement and removal will occur (i.e. carried in and placed with equipment, assembled on site, etc.) and if any disturbance would occur to the bed or banks for the installation and removal, including bank grading or cutting.

8.1.8.4. Duration of the placement of the TCSB.

8.1.8.5. Sediment controls that will be installed during the installation, use, and removal of the TCSB's.

8.1.8.6. How the TCSB's will be inspected during use and how they will be anchored to prevent them from being transported downstream.

8.1.8.7. State if the required 5-foot clearance will be maintained, or if the standards in NR 320.04(3), Wis. Adm. Code will be complied with.

8.1.8.8. How the waterway bed and banks will be restored when the TCSB is removed.

8.1.9. Describe the proposed area of land disturbance and vegetation removal at waterway crossings. Include a description of the type of vegetation to be removed (e.g. shrub, forest), and if this vegetation removal will be temporary (allowed to regrow) or permanent (maintained as cleared).

8.1.10. If any of the following activities are proposed, provide the information as detailed on the applicable permit checklist:

- New culvert placement: https://apps.dnr.wi.gov/doclink/forms/3500-130.pdf (General Permit) or (Individual Permit).

  https://dnr.wisconsin.gov/sites/default/files/topic/Waterways/checklist/IP/IP-culvert.pdf

- New permanent bridge placement: https://apps.dnr.wi.gov/doclink/forms/3500-130.pdf (General Permit, no in-stream supports) or (Individual Permit, in-stream supports).

  https://dnr.wisconsin.gov/sites/default/files/topic/Waterways/checklist/IP/IP-bridgeTempCross.pdf

- New storm water pond placed within 500 feet of a waterway: https://dnr.wisconsin.gov/sites/default/files/topic/Waterways/GP_23_2023_Ponds.pdf

8.2. Wetland Activities

This section should be consistent with the waterways included in DNR Tables 1 and 2 and associated maps. This section should apply to the proposed and alternative sites/routes (if applicable) and their associated facilities (for example, off-ROW access roads, staging areas, permanent structures, new substations and/or expansion of existing substations (including associated driveways and permanent storm water management features to be constructed).

8.2.1. Describe the method(s) used to identify wetland presence and boundaries within the project area (i.e. wetland field delineation, wetland field determination, conservative desktop review, etc.). If conservative desktop review was the only method used to identify the presence of wetlands, state if any areas will be field-verified (and when). If a combination of methods were used, describe which project areas utilized which method. The

associated delineation report and/or desktop review documentation should be uploaded to the PSC's website as part of the application filing.

8.2.2. Identify the number of wetlands present and by wetland type, using the Eggers and Reed classification. Provide as an overall project total, as well as broken down by the proposed site and the alternative site(s) (if applicable) and their associated facilities.

8.2.3. Wetland functional values:

8.2.3.1. Discuss the existing functional values of the wetland present. Functional values include but are not limited to floristic diversity, fish and wildlife habitat, flood storage, water quality, groundwater discharge and recharge, public use, etc.

8.2.3.2. Discuss how the project may impact existing functional values of wetlands.

8.2.3.3. Provide Wisconsin Rapid Assessment Methodology (WRAM) forms, or other assessment methodology documentation, if completed.

8.2.4. Identify any wetlands in the project area that are considered sensitive and/or high-quality wetlands, including, but not limited to:

8.2.4.1. Any wetlands in or adjacent to an area of special natural resource interest (ASNRI) (NR 103.04, Wis. Adm. Code).

8.2.4.2. Any of the following types: deep marsh, northern or southern sedge meadow not dominated by reed canary grass, wet or wet-mesic prairie not dominated by reed canary grass, fresh wet meadows not dominated by reed canary grass, coastal marsh, interdunal or ridge and swale complex, wild rice-dominated emergent aquatic, open bog, bog relict, muskeg, floodplain forest, and ephemeral ponds in wooded settings.

8.2.4.3. Any wetlands with high functional values based on factors such as abundance of native species and/or rare species, wildlife habitat, hydrology functions, etc.

8.2.5. Provide the following:

8.2.5.1. The number of wetlands that would have construction matting placed within them to facilitate vehicle access and operation and/or material storage. Provide the total amount of wetland matting, in square feet.

8.2.5.2. The number of structures that would be constructed within wetlands. Indicate if structures are temporary or permanent.

Provide the total square footage of permanent and temporary wetland impact for the placement of structures.

8.2.5.3. How many wetlands will have permanent fill placed within them. Provide the total amount of permanent wetland fill, in square feet.

8.2.5.4. How many shrub and/or forested wetlands would be cleared for construction. Provide the total amount of shrub and/or forested wetland conversion, in square feet.

8.2.5.5. How many wetlands will be impacted and/or crossed by other construction activities regulated under 281.36 Wis. Stats. (i.e. road building activities such as grading and cutting, substation upgrades, new tie-ins, vehicle/equipment access across wetland resulting in soil mixing or soil rutting, etc.).

8.2.5.6. For underground installation only: how many wetlands will be crossed by collection lines and specify the installation method (i.e. X wetlands will be bored, Y wetlands will be trenched, etc.).

8.2.6. Describe the sequencing of matting placement in wetlands and the anticipated duration of matting placement in wetlands. For matting placed in any wetland for longer than 60 consecutive days during the growing season, prepare and submit a wetland matting restoration plan with the application filing.

8.2.7. For wetlands that will be open-cut trenched, provide the following:

8.2.7.1. Provide details on the total disturbance area in wetland, including how total wetland disturbance was calculated. Include the size of the trench (length, width, and depth), where stockpiled soils will be placed (i.e. in upland, in wetlands on construction mats, etc.), and where equipment will operate.

8.2.7.2. Provide details on the proposed trench dewatering, including the method(s) that may be used (pumps, high-capacity wells, etc.), how discharge will be treated, and where the dewatering structure will be located.

8.2.7.3. Duration and timing of the work in wetlands.

8.2.7.4. How the wetlands will be restored to pre-existing conditions.

8.2.8. For wetlands that will be directionally bored, provide the following:

8.2.8.1. How bored wetlands and associated bore pits will be accessed.

8.2.8.2. The location and size of any temporary staging and equipment storage.

8.2.8.3. The location and size of bore pits and the distance from wetlands.

8.2.8.4. Provide a contingency plan for bore refusal and a plan for the containment and clean-up of any inadvertent releases of drilling fluid (e.g. a frac-out).

8.2.9. For wetlands that will be plowed, resulting in a discharge of fill (soil mixing and/or soil rutting), provide the following:

8.2.9.1. Provide details on the total disturbance area in wetland, including how total wetland disturbance was calculated.

8.2.9.2. Duration and timing of the work in wetlands.

8.2.9.3. How the wetlands will be restored to pre-existing conditions.

Note: Plowing through saturated or wet/soggy wetlands would likely result in soil mixing and rutting, and thus the plowing would then be 281.36 Wis. Stats. regulated activity.

8.2.10. For wetlands that will be crossed/accessed by vehicle/equipment resulting in a discharge of fill (soil mixing and/or soil rutting), provide the following:

8.2.10.1. Details on the total disturbance area in wetland, including how total wetland disturbance was calculated.

8.2.10.2. Duration and timing of the work in wetlands.

8.2.10.3. How the wetlands will be restored to pre-existing conditions.

Note: Vehicle/equipment access through saturated or wet/soggy wetlands would likely result in soil mixing and rutting, and thus the plowing would then be 281.36 Wis. Stats. regulated activity.

8.2.11. For wetland vegetation that will be cleared or cut for construction, provide the following:

8.2.11.1. Justification for why wetland trees and shrubs are proposed to be cleared, and what construction activity the clearing is associated with (e.g. transmission line installation, off-ROW access road, staging area, etc.).

8.2.11.2. The timing and duration of vegetation removal

8.2.11.3. Describe the type of equipment that will be used, and if the vegetation removal will result in soil disturbance, including rutting and soil mixing.

8.2.11.4. The type of wetland and type of vegetation to be cleared.

8.2.11.5. State if tree and shrubs that are removed will be allowed to regrow or be replanted, or if cleared areas will be kept free of trees and shrubs long-term.

8.2.11.6. Indicate the plan for handling and disposing of the debris (brush piles, tree trunks, wood chips, etc.) resulting from vegetation clearing in wetlands. State if debris would be removed from all wetlands to be cleared and disposed of in upland or other non-wetland locations.

8.2.11.6.1. If debris is not proposed to be removed from all wetlands during clearing, explain why disposal in non-wetland areas is not feasible.

8.2.11.6.2. If debris is not proposed to be removed from all wetlands during clearing, state how debris left in wetland will not restrict re-vegetation growth, will not alter surface elevations, and will not obstruct water flow. If wood chips will be placed in wetlands, state the depth (in inches) proposed.

8.2.11.6.3. If debris is not proposed to be removed from all wetlands during clearing, state how these wetlands will be monitored to ensure re-vegetation growth, surface elevations, and water flow are not impacted, and that the proposed depth of chip cover is adhered to. If re-vegetation growth becomes impeded, surface elevations become altered, and/or water flow becomes obstructed from wood chip placement, state how these impacts will be addressed and corrected, if they should occur.

8.2.12. Provide the methods to be used for avoiding, minimizing, and mitigating construction impacts in and near wetlands. This discussion should include, but is not limited to, how wetland impact was first avoided then minimized by shifting the project boundary, relocating structures and/or fill outside of wetland, minimizing construction ROW through wetland, by installation methods (i.e. directional bore versus open-cut trenching, soil segregation during trenching, etc.), equipment crossing methods (i.e. use of construction matting, frozen ground conditions, etc.), sediment and erosion controls, invasive species protocols for equipment, etc. Additional guidance to prepare this discussion can be found here: https://widnr.widen.net/s/fxdd8pmqgg/paasupp3utility.

8.2.13. Indicate if an environmental monitor will be employed during project construction and restoration activities. If so, describe the monitors roles and responsibilities, frequency of visits, etc.

8.2.14. Describe how all wetlands within the project area will be restored. This discussion should include details on the seeding plan, maintenance and monitoring, restoring elevations and soil profiles, restoring wetland hydrology, etc.

8.3. Mapping Wetland and Waterway Locations, Impacts, and Crossings

Provide the following map sets, as described below, for each proposed and alternative sites/routes (if applicable) and their associated components. Each map set should include an overview or index page that includes page extents for the corresponding smaller-scale map pages within the remainder of the map set. The smaller-scale map pages should show the project and resources in greater detail, include pages numbers to reference to the overview page, and have consistent scales throughout the pages.

8.3.1. Aerial Map Imagery showing the following:

- Delineated wetlands, labeled with the feature unique ID,
- Wisconsin Wetland Inventory ("Mapped Wetlands" SWDV layer) and hydric soils ("Wetland Indicators & Soils" SWDV layer), if a delineation was not conducted,
- DNR-mapped waterways, labeled with the feature unique ID,
- Field identified waterways, labeled with the feature unique ID,
- Vehicle crossing method of waterways for both permanent and temporary access, labeled by the crossing method (i.e. TCSB, installation of culvert, installation of bridge, installation of ford, use of existing culvert, use of existing bridge, use of existing ford, driving on the bed),
- ROW,
- Locations of temporary and permanent structures,
- Transmission line route,
- Segment names and nodes,
- Access paths (both on and off-ROW). Off-ROW access roads should be labeled with an identifying name or number,
- Staging areas, laydowns, and any temporary workspaces, such as crane pads (labeled with identifying name or number),

- Footprint of new substations and/or footprint of existing substations to be expanded, and associated driveways and permanent storm water management features to be built (ponds, swales, etc.),
- Placement of construction matting in wetlands,
- Underground line installation only: symbolize the line route to indicate installation method (directional bore, open-cut trench, plow etc.). This includes the excavation areas in wetlands (i.e. bore pits, open-cut trench, etc.), and;
- Locations of any other waterway or wetland impacting activity regulated under Wis. Stats. Chapter 30 and 281.36.

8.3.2. A map showing which method(s) were used to identify wetland presence and boundaries within the project area (i.e. wetland field delineation, wetland field determination, conservative desktop review).

9. Endangered, Threatened, Special Concern Species, and Natural Communities

In the *Introduction*, *page ii* of this document, additional details are provided on how to perform an Endangered Resources (ER) screening and about performing habitat assessments, if required.

9.1. Provide a copy of the completed ER screening and all supporting materials for all project areas, including all applicable components such as off-ROW access routes, staging areas, new substations, and expansion of existing substations.

9.2. Submit results from habitat assessments and biological surveys for the proposed project, if completed or if required to be completed per the ER screening. If surveys or assessments are required to be completed prior to construction but have not yet been completed, state when these surveys will be completed. Results from additional surveys conducted during the review of the application, prior to the start of construction, and/or post-construction must be submitted as they are completed.

9.2.1. Species as identified in the completed ER screening and/or field assessments.

9.2.2. For any required follow-up actions that must be taken to comply with endangered species law, discuss how each required action would affect the proposed project, and how the required action would be complied with.

9.2.3. For any recommended follow-up actions to help conserve Wisconsin's rare species and natural communities, discuss if and how any recommended actions would be incorporated into the proposed project.

9.2.4. If any recommended follow-up actions are not planned to be incorporated into project construction or operation, state the reasons why.

9.3. Provide communications with DNR and U.S. Fish and Wildlife Service, as applicable.

10. DNR Information regarding Erosion Control and Storm Water Management Plans (not PSC requirements)

This section serves as guidance for development of Erosion Control and Storm Water Management Plans associated with DNR NR 216 Permits. These are not requirements for a PSC CPCN or CA.

10.1. Erosion Control and Storm Water Management Plans

DNR requires a detailed description of temporary and permanent erosion and sediment control measures to be utilized during and after construction of the project.

If the project would involve one or more acres of land disturbance, the applicant's request for permits under Wis. Stat. § 30.025 must identify the need for coverage under the Construction Site Storm Water Runoff General Permit [PDF] from DNR. The permit application itself must be submitted through DNR's electronic Water Permits system after the PSC order. This permit may also authorize construction site dewatering discharges under certain conditions.

The Storm Water Permit and Wis. Admin. Code ch. NR 216 require a site-specific Erosion Control Plan, Site Map, and Storm Water Management Plan. The permittee would be required to implement and maintain, as appropriate, all erosion and sediment control practices identified in the plans from the start of land disturbance until final stabilization of the site. Final stabilization means that all land-disturbing construction activities at the construction site have been completed and that a uniform perennial vegetative cover has been established with a density of at least 70 percent of the cover for the unpaved areas and areas not covered by permanent structures or equivalent stabilization measures.

The Erosion Control Plan, Site Map, Storm Water Management Plan, and any supporting documentation (such as modeling input/output, design specifications, geotech/soil report, site photos, etc.) must be submitted with the Storm Water Permit application through the DNR's ePermitting system.

Erosion Control Plan - See Wis. Admin. Code § NR 216.46 for details regarding information required in the Erosion Control Plan as part of a complete permit application. Sections include:

- Site-specific plans.
- Compliance with construction performance standards in Wis. Admin. Code § NR 151.11.

- Details about the site and the project.
- List and schedule of construction activities.
- Site map(s) with site, project, and erosion and sediment control details.
- Description of temporary and permanent erosion and sediment controls.
- Compliance with material management, velocity dissipation, and inspection schedule requirements.

Storm Water Management Plan – See Wis. Admin. Code § NR 216.47 for details regarding information required in the Storm Water Management Plan as part of a complete permit application. Sections include:

- Compliance with applicable post-construction performance standards in Wis. Admin. Code § NR 151.121 through § NR 151.128.
- Description of permanent storm water management practices at the site and technical rationale.
- Groundwater and bedrock information if using permanent infiltration devices.
- Separation distances of permanent storm water management practices from wells.
- Long-term maintenance agreement for site vegetation and any other permanent storm water management features.

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