Q. Please state your name, business address, and occupation.

A. My name is Nicole Clayton. My business address is 101 S. Webster St., Madison, WI 53707. I am employed by the Wisconsin Department of Natural Resources (WDNR) in the Bureau of Drinking Water and Groundwater as a Water Supply Specialist.

Q. Please describe your educational background, experience, and professional training.

A. I received a Bachelor of Science degree in Geology from St. Norbert College in 2000 and a Master of Science degree in Geology from Miami University in 2003. I have worked for the WDNR since March 2005. From March 2005 – May 2012, I served as a Water Resources Specialist, responsible for project management of statewide technical reports (TMDLs) related to water quality under the Clean Water Act. Since May 2012, I have worked as a Water Supply Specialist in the Bureau of Drinking Water & Groundwater. Part of my responsibilities include conducting reviews associated with water use permit applications and water loss approval applications to ensure compliance with the Great Lakes Compact regulatory requirements. I work with hydrogeologists that conduct hydrologic analyses to assess the magnitude of potential impacts and other WDNR staff to assess other environmental impacts related to water withdrawals and water loss in Wisconsin.

Q. What are your responsibilities in this case?

A. For the Nemadji Trail Energy Center Combined-Cycle Project (referred to hereafter as the “proposed project” or “project”), as jointly proposed by South Shore Energy, LLC and Dairyland Power Cooperative (collectively referred to hereafter as “the applicants”), my primary
responsibility is to review the water use permit application under Wis. Stat. § 281.346(5) and the
water loss approval application under Wis. Stat. § 281.35. I coordinate my efforts with
hydrogeologists in the Water Use Section in the Bureau of Drinking Water & Groundwater who
are responsible for the review of the high capacity well applications to determine if impacts may
occur related to proposed withdrawals and associated water loss. I assisted in authoring relevant
water use sections of the Draft Environmental Impact Statement (DEIS) and Final Environmental
Impact Statement (FEIS) for PSC.

Q. What is the purpose of your testimony?

A. My testimony describes WDNR’s preliminary review of the water loss approval application and
water use individual permit for the proposed project. My testimony addresses potential impacts
from the proposed groundwater withdrawals for the project related to the applicable water use
regulations. No determinations have been made on whether to issue the water loss approval or
water use permit because WDNR has not received complete applications for either the water use
permit or the water loss approval at the time I submit this testimony.

Q. Are you sponsoring any exhibits with your direct testimony?

A. Yes, I am offering Ex.-WDNR-Clayton-1 and Ex.-WDNR-Clayton-2.

Q. What information have you used in your review of the water loss approval application?

A. My preliminary review included a review of the water use individual permit application, the
water loss approval application, pertinent sections of the Certificate of Public Convenience and
Necessity (CPCN) application, supplemental information provided by the applicants, a technical
memorandum developed by WDNR hydrogeologist Ian Anderson (Ex.-WDNR-Anderson-1),
well construction report records (Ex.-WDNR-Anderson-3), and discussions with the applicants
and their consultants.

Q. Please describe the need for a water use individual permit.
Q. A water use individual permit is required for this project because the applicants are proposing to withdraw at least 1,000,000 gallons per day for any 30 consecutive days from the Lake Superior Basin (Wis. Stat. § 281.346(5)).

A. Has the WDNR received a complete application for the water use individual permit?

A. On April 5, 2019, I received a Water Use Individual Permit Application. The Water Use Permit Application did not contain supporting documentation to show that the requirements of Wis. Stat. § 281.346(5)(e) are met. WDNR sent a letter to the applicants on May 1, 2019 determining the water use permit incomplete (Ex.-WDNR-Clayton-1). Until further information is provided, the WDNR is unable to determine that the application is complete under Wis. Adm. Code § NR 860.32(1)(a). In addition, WDNR cannot issue an individual water use permit until all other necessary permits and approvals for the withdrawal have been issued. Wis. Adm. Code § NR 860.32(1)(c).

Q. Please describe the need for a water loss approval.

A. As part of the proposed project, the applicants propose to withdraw water from up to 5 groundwater wells on the Nemadji River site and the resultant water loss would average more than 2,000,000 gallons per day over any 30-day period. Therefore, a water loss approval is required, as specified under Wis. Stat. § 281.35, and Wis. Adm. Code Ch. NR 142.

Q. What information do you consider in your review of the water loss approval application?

A. The preliminary review focuses on the water loss application materials and required components under Wis. Stat. § 281.35 and Wis. Adm. Code § NR 142.06. The applicant must document the anticipated effects the proposed withdrawal will have on existing uses of water resources and related land uses both within and outside of the Great Lakes basin or the upper Mississippi river basin, including effects on: public and private potable water supplies, agricultural water use, industrial and commercial water use, thermoelectric power production, fish and wildlife, recreation, and other effects. Wis. Adm. Code § NR 142.06(2)(h). To ensure DNR is able to make the necessary determinations, I also consider information provided by the applicants including: a
water conservation plan, high capacity well application, the CPCN and supplemental information the applicants have provided in response to specific WDNR inquiries.

Q. Does the WDNR consider the water loss approval application for the proposed project to be complete?

A. No. On June 27, 2019 I provided the applicants a letter informing them that WDNR considered the water loss application incomplete and I requested additional information. This letter is attached to my testimony as Ex.-WDNR-Clayton-2.

The applicants have proposed collecting additional information in the form of soil borings and another pumping test with the intent of demonstrating the presence of a sustainable source of groundwater for the project, in addition to completing a survey of private wells in the drawdown area. I have also received draft information from the Applicants regarding alternative sources for water supply and construction costs, as requested. However, I have not yet received all the information necessary for a complete water loss approval application.

Q. In your opinion, would the construction and operation of the proposed high capacity wells result in significant adverse impacts to any waters of the state?

A. Yes, based on the hydrostratigraphic conceptualization developed by the WDNR the operation of the high capacity wells, and associated water loss, would result in significant detrimental effects to the quantity of groundwater at the Nemadji River site.

Q. Do you have an opinion as to whether WDNR would likely be able to issue a water loss approval for the proposed project considering WDNR’s approval criteria, recognizing that the application is not complete?

A. WDNR has yet to make a final determination as to whether WDNR may issue a water loss approval for the proposed project under the statutory requirements for a water loss approval. The WDNR may approve a water loss application if it finds:

(a) That no public or private water rights in navigable waters will be adversely affected;
(b) That the proposed withdrawal does not conflict with any applicable plan for future uses of the waters of the state, including plans developed under Wis. Stat. §§ 281.12 (1) and 283.83, and any water quantity resources plans prepared under Wis. Stat. § 281.35 (8).

(c) That both the applicant's current water use, if any, and the applicant's proposed plans for withdrawal, transportation, development and use of water resources incorporate reasonable conservation practices;

(d) That the proposed withdrawal and uses will not have a significant adverse impact on the environment and ecosystem of the Great Lakes basin or the upper Mississippi river basin;

(e) That the proposed withdrawal and uses are consistent with the protection of public health, safety and welfare and will not be detrimental to the public interest; and

(f) That the proposed withdrawal will not have a significant detrimental effect on the quantity and quality of the waters of the state. Wis. Stat. § 281.35(5)(d).

I do not have all information required to make a final determination on whether to issue the water loss approval. However, based on WDNR’s technical analyses of groundwater in the region (Ex.-WDNR-Anderson-1) and our high capacity well review, my opinion is that it may be difficult for WDNR to find that the proposed withdrawal will not have a significant detrimental effect on the quantity of groundwater at the Nemadji River site, which is required under Wis. Stat. § 281.35(5)(d)6.

Q. Does this conclude your testimony?

A. Yes.