



April 5, 2012

Mr. Darrell Nitschke, Director of Administration  
ND Public Service Commission  
600 East Boulevard Avenue  
Bismarck, ND 58505-0480

**RECEIVED**

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**PUBLIC SERVICE COMMISSION**

Re: Petition to Master Meter Office Space  
Electric Service at  
Capital Building One  
4501 Coleman Street  
Bismarck, ND 58502

**Case Number: PU-12-135**

Dear Mr. Nitschke:

We designed the electrical installation for a new building as part of a new commercial development for Lexstar Construction. The building has two floors of 15,000 square feet per floor, for a total of 30,000 square feet per building. The complex will eventually include (4) identical buildings. The buildings will be built to accommodate any number from a single tenant to a maximum of (29) tenants. The electrical service provider for each building will be Montana-Dakota Utilities (MDU).

On behalf of the owner, we are requesting a waiver pursuant to subsection 3 of section 69-09-02-37 of the North Dakota Century Code in order that a master metering configuration may be utilized for the installation in lieu of separate meters for an undefined and indefinite number of tenants.

The design intent is to have a single 1200A panel in each building that will serve panels throughout the building according to each tenant's needs. The meter for this panel will be located at the utility transformer serving the building. The quantity of tenants and the electrical requirements of each tenant will likely change frequently throughout the life of the building.

The single master meter strategy of the building allows the most flexibility from a leasing standpoint. If there are many tenants, each tenant may opt to have their own panel or may share a panel with another tenant, depending on electrical requirements. Or, a larger tenant will have the option of bringing a larger feed to their space from the distribution panel and distributing within their own unit.

In a multiple meter scenario, each tenant will pay their own electrical meter fee and all associated charges. A larger tenant will likely need to utilize multiple meters to serve their space, resulting in higher meter fees.

Based on budgetary quotes from an equipment supplier, it is estimated that the cost of a single 1200A distribution panel would be approximately \$10,000. The cost of a 1200A meter center inside the building with (29) meter center breakers would be around \$23,000. Assuming the cost of the service entrance conductors is the same for both scenarios, the distribution panel equipment alone would save approximately \$13,000 in initial material costs. This does not include the cost savings from only having to install a single distribution panel versus a large meter center with all the included components and sections.

The costs of operating would be reduced as well by utilizing a master metering arrangement. Based on documentation from MDU's website, the meter fee for a single general electric service meter is \$45 per month. The small general electric service (for those tenants who would be eligible) would be \$21 per month (based on a 30 day month). The usage rates and demand charges vary by rate. Taking into account only the metering fees, if (for example) 18 tenants are in place, the metering fees for a multi-metering arrangement would exceed \$4500 per year (if all tenants were eligible for the least expensive small general electric service rate). In a master metering situation, the metering fee for the year would be only \$540. Obviously, the discrepancy becomes more pronounced as more tenants are involved. In addition, the overall demand on the building electrical service would be reduced by having a single meter, resulting in operational savings to the owner which can be passed on to the tenants.

There are other factors which we believe make the single meter advantageous for this installation.

The design of the building is intended to have 4-sides that may serve as entrances to leased spaces. In light of that, it is desirable to have the main electrical panel (or meter center) located inside the building from an aesthetic standpoint. The size of the distribution panel is identifiable, but a meter center setup would be difficult to accommodate due to the potential size of the equipment that would be needed to accommodate the maximum number of tenants possible. The design of the interior electrical space would need to accommodate the maximum number of meter center breakers and would likely result in a much larger room than is actually needed. This would cause a loss in potential revenue generating space for the owner.

The mechanical system serving the building is a Variable Refrigerant Volume (VRV) system utilizing air to air heat pumps and indoor fan coil units that serve the entire building. The system uses an array of

centralized air to air heat pumps to satisfy the building's heating and cooling load. Individual fan coil units located throughout the building share the energy between all the spaces, via common refrigerant supply and return piping that allow heating and cooling to be transferred throughout the building. This is an extremely energy efficient and flexible system, however, there is not an opportunity for each tenant to have their own mechanical system on their own meter since all indoor units are connected to a common air to air heat pump array. The owner would need to have a dedicated electrical service to serve the mechanical system, the costs of which would need to be passed on to the tenants

In addition, the meter center installation would essentially eliminate the possibility of adding a generator in the future which could offset utility costs by operating as an interruptible load.

In summary, it is our belief that a master metering scenario for these buildings would be beneficial to both the tenants and the owner of the building. A master meter offers increased flexibility, lower installation and operational costs, and maximizes the leasable space in the building.

We respectfully submit this petition to the North Dakota Public Service Commission and ask for a waiver pursuant to subsection 3 of section 69-09-02-37 of the North Dakota Century Code.

Thank you for your consideration in this matter.

A handwritten signature in black ink, appearing to read "Tony Nelson".

Tony Nelson, PE

Obermiller Nelson Engineering