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RE: Indiana Municipal Utility Coalition
Second Strawman Draft Proposed Rule
Rulemaking No. 15-06

The Indiana Municipal Utility Coalition (Coalition or MUC) wants to thank the Indiana Utility Regulatory Commission (Commission) and its staff for the effort that has gone into developing the Second Strawman Draft Proposed Rule (Proposed Rule). MUC is aware of the extended procedural history and the difficulties in coordinating many different stakeholders. Regardless of the challenges, the Proposed Rule provides a sound framework for an Integrated Resource Planning (IRP) process that will support the critical decisions shaping the future of Indiana's electric utility industry.

The Coalition represents the interests of municipal water and wastewater utilities across the State of Indiana. MUC was organized under the leadership of the cities of Fort Wayne, Evansville and Marion and coordinates its regulatory and legislative initiatives with a group of municipal Public Works Directors from the thirty (30) largest municipal utility systems in the State.

These Comments are submitted from the perspective of a large power intensive base load customer which provides critical public services that demand a high degree of reliability.

SUMMARY OF COMMENTS

The Coalition has four concerns and recommendations:

1. The definitions of "demand-side resource" suggests that the electric utility needs only to consider utility sponsored demand response and energy efficiency programs in its analysis of these resources. Electric utilities should be required to consider the potential development and use of demand response and energy efficiency initiatives outside of their approved Energy Efficiency Plans. The utility should also be required to address the merits of expanding and supporting accelerated deployment of these demand-side resources through financial incentives and other forms of capital cost sharing.
2. The definition of "renewable resource" needs to be expanded to include the recovery of methane gas from anaerobic digesters used in the wastewater treatment process.

3. The electric utility's analysis of supply-side resources should include potential cogeneration within its service territory beyond existing cogeneration installations, specifically including municipal wastewater and water systems.
4. For large targeted power intensive customers, the required customer surveys should include an assessment of the customer's energy requirements, potential for demand response, energy efficiency and cogeneration projects and the customer's current plans for facility capital improvements.

INTRODUCTION

The Coalition's interest is to ensure that the Proposed Rule and electric utility IRPs recognize the potential for infrastructure improvements at municipal wastewater and water systems to serve as reliable and cost-effective supply-side and demand-side resources. Many of these municipal utility systems were installed in the 1940's, 50's and 60's and are highly energy inefficient due to age. This infrastructure needs upgrading, replacement and expansion due to the critical nature of the public services provided. Most of these capital project decisions create important opportunities for new demand-side management, industrial energy efficiency, demand response, and combined heat and power (cogeneration) initiatives. All can serve as reliable and cost-effective electric resources benefiting both the electric and municipal utility ratepayers.

Timing, however, is critical. Capital project decisions that will impact facility electric demand and energy requirements are being made in the near future. These are decisions that involve facility design and construction, power intensive pumps, motors, blowers and other equipment, wastewater collection and treatment processes and water treatment and distribution processes. These decisions are complex and being made in the context of uncertain energy prices, historic investments electric utility infrastructure, regulatory changes in wholesale and retail electric markets, new tariff offerings, emerging technologies and a transitioning to a new electric utility business model. The Coalition believes the best way forward is through strong partnerships between cities and electric utilities and close coordination between infrastructure investments. The technical expertise of both the electric and municipal utilities need to be leveraged and the artificial "meter" barrier eliminated. To maximize the benefits to both electric and municipal utility ratepayers, financial resources can be a leveraging of through creative approaches to capital cost sharing.

DEMAND-SIDE RESOURCES

A concern of the Coalition is that the Proposed Rule appears to limit the electric utilities' analysis to the demand-side resources in existing utility demand response and energy efficiency programs. The Proposed Rule defines "demand-side resources" as one or more demand-side management programs. 170 IAC 4-7-1(k). "Demand-side managements program" is defined as a *utility program* designed to implement demand response or energy efficiency. 170 IAC 4-7-1(i). The Proposed Rule goes on to require the utility to analyze alternative methods for meeting future electric demand, including demand-side resources, which by definition appears to be limited to existing utility's demand response and energy efficiency programs. The factors to be addressed likewise appear to focus the analysis on existing utility sponsored programs, including: annual avoided costs; participants billing impact; impact on customer class and use; participants bill

impact; participation incentives; program costs; annual kWh and kW savings; program penetration rate; impact on utility load; and the extent to which the program provides for ratepayer participation. 170 IAC 4-7-6 (b)(2). All of these factors appear to address existing utility demand response and energy efficient programs.

Based upon prior IRP Director Reports and Contemporary Issues Technical Conferences the intent of the IRP process is to consider potential demand-side resources more broadly, beyond existing utility demand response and energy efficiency programs. 170 IAC 4-7-2.1(f) and 170 IAC 4-7-2.7. The Coalition raises the issue because historically, the electric utilities' demand response and energy efficiency programs have targeted only the smaller residential and commercial customers with lighting, appliance, HVAC and small equipment initiatives. The utilities have not tapped into the potential demand-side resources that may be available at facilities of larger more power intensive customers. Clearly that is the case with municipal wastewater and water systems.

Electric utilities have been reluctant to include more broadly defined demand-side resources in their IRP modeling due to uncertainty. That uncertainty, however, is disappearing over time as costs of renewables become lower and distributed generation is integrated into the electric grid. The Coalition recommends additional clarification to the Proposed Rule regarding the scope and nature of the analysis of demand-side resources required by 170 IAC 4-7-6(b).

RENEWABLE RESOURCE

One of the most promising supply-side resources is cogeneration, and this is particularly true in the context of municipal wastewater treatment facilities and operations. Currently significant amounts of methane gas produced by anaerobic digesters at wastewater treatment facilities are being wasted. As electric prices rise, it has become economical for cities to make the investment in cogeneration facilities, where the methane gas is used as a fuel for the generation of electricity and thermal energy used to heat the digesters.

It does not appear that methane gas produced by anaerobic digestion as part of the wastewater treatment process is a renewable resource under the Proposed Rule. 70 IAC 4-7-1(kk) defines "renewable resource" as a renewable energy resource under IC 8-1-8.8-10. Among other things, IC 8-1-8.8-10 defines "renewable energy resources" as a clean energy resource listed under IC 8-1-37-4(a)(1) through IC 8-1-37-4916). The list does not specifically include methane from the wastewater treatment process, however, it does include any source designated as a clean energy resource by Commission rule.

To the extent the Commission has not already designated methane gas from wastewater treatment process as a renewable resource under other existing rules, the Coalition would ask that the Commission make the designation as part the Proposed Rule.

COGENERATION

Although 170 IAC 4-7-6 (b) requires that supply-side resources be analyzed, including cogeneration, it is not clear how the potential for cogeneration generally within a service territory will be addressed in the electric utility's IRP. Cogeneration is designated as a supply-side resource which has been defined as "a resource that provides a supply of electric energy or capacity, or both, to the utility." 170 IAC 4-7-1(ss). In most instances, however, the electric output of a cogeneration installation is used by the customer to meet its electric requirements, and is not provided to the utility. There are exceptions where large power intensive industrial or manufacturing operations with cogeneration or waste heat recovery facilities export power to the utility.

Regardless of how supply-side resources are characterized, what is important to the Coalition is that the electric utility's evaluation of cogeneration as a potential electric resource fully reflect its value. The value of cogeneration is driven by efficiency gains from producing two forms of useful energy from a single fuel, rather than separate operations for thermal requirements (boilers) and purchasing electricity from the electric utility. The efficiency gains are significant, increasing from approximately 30-35% to 70-85%.

From these efficiencies flow other important benefits of significant value, including:

- 1) cost-effectiveness in meeting energy requirements;
- 2) increased reliability of customer energy supply;
- 3) enhanced resiliency of critical facilities in the event extraordinary events;
- 4) base load generation;
- 4) avoidance of investment in electric generating, transmission and distribution plant;
- 5) significant reductions in air emissions; and
- 6) a cost-effective compliance measure for meeting carbon emissions performance standards.

170 IAC 4-7-6 (b)(3) does require cogeneration to be analyzed as a potential resource, and that the IRP address size, technology, fuel type, the required transmission and coordination with other utilities. This again may be construed as applying only existing cogeneration installations at specific facilities. The concern is raised because in the past electric utilities have taken the position that cogeneration cannot be evaluated as an electric resource because of facility specific energy requirements. While the energy requirements of specific facilities may make cogeneration more or less desirable, this does not prevent an assessment of the potential for cogeneration within a utility's service territory. This is particular true within the municipal utility sector.

The electric utility's analysis of supply-side resources should include the potential for cogeneration at customer facilities whose operations and energy requirements make cogeneration technology desirable, specifically including municipal wastewater and water systems. The analysis should reflect the full value of cogeneration to the electric utility and customer.

LARGE CUSTOMER SURVEYS

Municipal wastewater and water systems are some of the electric utilities' largest and most power intensive customers. Being such a large load, the utility is familiar with the facilities' operations and energy requirements. It would not be difficult as part of the survey requirements under 170 IAC 4-7-4(15) for electric utilities and cities to work together to assess the potential for major demand response, energy efficiency and cogeneration projects which would benefit both the municipal and electric utility ratepayers.

For large targeted power intensive customers, the required customer surveys should include an assessment of the customer's energy requirements, potential for demand response, energy efficiency and cogeneration projects and the customer's current plans for facility capital improvements.

IRP PROCESS

All agree that the long-term goal of the IRP process is to provide a cost-effective and reliable supply of electricity, a resilient electric grid and cleaner energy. While there is uncertainty in the future, the known changes include more electricity from renewable sources, greater distribution of electricity generation across the grid, new technologies that will enhance efficient use of electricity and some form of regulation of carbon emissions.

The IRP is a continuously evolving platform of information used in making long-term capital investments in utility plant. The role of the IRP process is to provide the information necessary to avoid over building electric utility plant and creating future stranded assets. The risks of over build can be mitigated by incremental investments in these new electric resources that are known to be part of the future, such as renewable energy, demand response, energy efficiency, and cogeneration. The key will be the timing, the approach used to integrating these new resources into the electric system and not jeopardizing electric system reliability.

CONCLUSION

It is important that the IRP process timely recognize the full value of the demand-side and supply-side resource opportunities at municipal wastewater and water systems as infrastructure is modernized. Both municipal and electric utilities will be investing heavily in new and upgraded infrastructure. Now is the time to act. The Coalition is convinced that the best way forward is through strong partnerships between Indiana's cities and electric utilities and an effective leveraging of technical expertise and financial resources.