Public comments in the matter of the Avista Utilities electric general rate case (UE-170485) submitted by:

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Submitted to:

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These comments have been submitted in electronic form to the Commission Records Center at records@utc.wa.gov

On January 5, 2018 the Commission shifted the discussion of Avista's fuel-switching programs from the Biennial Conservation Plan (docket UE-171091) to the Company's electric general rate case (docket UE-170485), which was scheduled for hearing very shortly thereafter. At that time the Commission stated a preference for comments regarding the fuel-switching elements of the Avista's demand-side management portfolio to be submitted as part of the general rate case proceedings. These comments are being submitted in accordance with the Commission's stated preferences.

The shift of this topic out of the biennial conservation plan to the general rate case, and the timing of that shift, has made it challenging for full public participation in the discussion of this topic. Nevertheless, I wish to submit written comments relating to two issues regarding the Company's fuel-switching programs; (1) the validity, or lack thereof, of the "direct-use of natural gas" policy that has served as the foundation for the fuel-switching programs since they were launched in 1992 and (2) the mischaracterization of Avista's multifamily fuel-switching program as a market transformation venture.

"Direct-use of natural gas" policy

Avista's first interventions into utilizing ratepayer demand-side management funds to influence customer fuel choice decisions were based upon what has been termed the "direct-use of natural gas" policy argument. That argument contends that it is more cost-effective to send a therm of natural gas directly to the home for use in space or water heating rather than the alternative of sending that same therm of natural gas to a natural gas turbine and then, indirectly in the form of electricity, to the home to serve space and water heating needs. Calculations based upon then-prevailing natural gas turbine

heat rates, electric and natural gas appliance efficiencies and costs, distribution losses and incremental utility infrastructure costs were offered in support of the cost-effectiveness calculations.

The direct-use argument is critically reliant upon the assumption that the deferrable supply-side resource for Avista was exclusively a natural gas turbine, and would remain so for the relevant life of that fuel choice decision. The foundation of the argument is that the only alternative to sending a therm of natural gas directly to the home was to supply that home with natural gas turbine generated electricity to serve the same end-uses. In recognition of this foundational policy, Avista limited their intervention in the fuel choice decision to that of electric versus natural gas. Other potential alternative end-use fuels, such as propane and biomass (wood burning), were excluded based upon the recognition that those fuels were not relevant to the deferrable natural gas turbine alternative.

Twenty-six years later, the assertion that natural gas turbines are the sole deferrable electric resource is definitively not true based upon current and future renewable portfolio standard requirements. Furthermore, the policies and the economics of the generation of electricity can be reasonably expected to further erode the role of the natural gas turbine in the deferrable resource mix of the future. Though natural gas turbines will likely always be an element of the deferable resource mix, it is certain that carbon costs, advancements in renewable generation and a variety of other foreseeable and unforeseeable factors will ensure that they will share a substantial part of that role with other generation sources.

Not only is the foundational argument for intervention in the customer fuel choice decision no longer valid today, it is certainly no longer valid for the life of the customers fuel choice decision. Avista's intervention into that decision process is not limited to the life of the appliances (furnace or water heater) involved as these appliances will almost certainly be replaced with similarly fueled appliances for the remaining of the life of the dwelling. Thus the consequences of the fuel choice decision will have an impact for the remaining life of the home. Today's fuel choice decision has implications which extend forty, fifty or sixty years or more into the future, and needs to be consistent with the markets of that period. Given the trends in the deferrable electric generation resource mix it is implausible to assert that natural gas turbines will sufficiently dominate the deferrable resource mix to the extent necessary to support the continued application of the foundational direct-use policy argument justifying a ratepayer funded intervention into the fuel choice decision.

Based upon this factor alone, the continued ratepayer financing of these programs through the demand-side management tariff rider mechanism (Avista's Schedule 91) should be terminated.

But there is additional cause to question the wisdom of the continuation of the fuel-switching programs from a customer perspective. When the intervention into the fuel-choice decision was originally proposed it was argued that it was in the public interest partially because not only were natural gas turbines assumed to be the sole deferrable resource for Avista, it was also the regional deferrable generation resource. Consequently, the market price (and therefore the avoided cost of electricity) could reliably be determined based upon the fuel and variable operations and maintenance cost of the last gas turbine in the region that needed to be brought into operation to serve regional electricity demand. The link between natural gas prices and electricity prices was so strong that it was expected that their future avoided costs would move in lock step. Those avoided costs may go up or down, but it was believed that one could safely rely upon them doing so in a parallel fashion. As it is no longer plausible to assert that natural gas turbines will be the definitive deferrable electric generation resource

of the future, this assumption is greatly compromised. Future avoided cost streams can be expected to move more independently. It is even possible, depending on natural gas and renewable generation efficiency trends and future monetized carbon costs, that those avoided cost streams will cross at some point. This adds an additional risk to the fuel decision calculus that erodes the ability to represent Avista's fuel-switching programs as being in the public interest.

To summarize my discussion of this issue, I contend that the assumptions necessary to accept the foundational policy arguments supporting utility intervention in the fuel choice decision are no longer true. Lacking the legitimacy of those assumptions, the direct-use argument itself no longer supports the Company's ongoing intervention into fuel choice decisions that will remain in place for a forty to sixty year horizon. The ratepayer funding of the intervention in the fuel choice decision should be terminated. This does not limit the Company's ability to pursue natural gas marketing efforts with shareholder dollars, but as these programs no longer serve a public interest a continuation of ratepayer funding is not supportable.

<u>The multifamily fuel-switching market transformation program</u>

Ten years ago Avista presented to their Advisory Group a proposal to intervene into the fuel-switching decisions of the developers, managers and owners of multifamily residential dwellings through a market transformation program. The market transformation tool had been successfully applied regionally by the Northwest Energy Efficiency Alliance and had a strong performance record on a portfolio basis, though it has always been recognized that it is inevitable for individual ventures to fail.

Avista proposed a three-phase approach to a market transformation that would enhance the share of natural gas in new and existing multifamily buildings. The proposed three phases were:

1. A super-incentive phase of sufficient duration to secure a toe hold in the market so as to demonstrate the technical feasibility of using natural gas in multifamily buildings.
2. Curtailment of the super-incentive phase with the substitution of an educational campaign targeting building developers, managers and owners emphasizing the Company's beliefs regarding benefits of natural gas and their technical feasibility.
3. Once a sufficient number of natural gas buildings existed, the augmentation of the phase 2 educational campaign with a marketing campaign driving future tenants towards natural gas buildings.

The market transformation was complete with metrics, triggers for moving to each phase and an exit strategy.

Avista is now proposing to continue the ratepayer funding of this program a full decade after it was originally presented to the Advisory Group. This is far longer than the active phase of accepted market transformation ventures. The Company has also suggested that it is premature to even move the program out of that first "super-incentive" phase that was originally designed to secure a toe hold in the market.

Since originally launching this program the Company has increased the incentives for their fuel-switching programs from a range of one to seven cents per first year kWh (dependent on project simple payback)

to a flat 20 cents per first year kWh. The Company pays the same amount to transfer a kWh from the electric meter to the natural gas meter as they do to save the same kWh through pure efficiency. Beyond that, for fuel-switching programs the payment is made on the entire end-use load shifted, not just on the portion of the end-use load saved through efficiency as is the case in electric efficiency programs.

Schedule 90 does impose a cap on the incentives that can be granted to a customer as a percentage of the customer cost. However, by representing this program as a market transformation program the Company is triggering a provision of Schedule 90 that allows for the ratepayer funding of up to a full 100% of the project cost.

As Staff has noted, this has driven a tremendous increase in the incentives paid per dwelling unit for these projects. Staff has also noted that the ratepayer funded incentives are concentrated into the hands of a very small number of building developers.

Though this project was originally represented as a market transformation project, it has not been implemented in accordance with the accepted principles of the management of a market transformation program. It has instead become an opportunity to fund all or a very large portion of the project cost of a select few developers of multifamily buildings. The Company should be directed to terminate the program based upon its ongoing misrepresentation of the program as a market transformation venture as well as the previously cited flaws in the general fuel-switching program policy.

Concluding remarks

Avista's twenty-six year history of fuel-switching programs has achieved many laudable outcomes and has served as a positive example of wise market intervention. But the history of these programs was based upon different circumstances and futures than we are facing today. Lacking the legitimacy of the foundational policy arguments which led to the original implementation of these fuel-switching programs it is unwise to authorize the continued ratepayer funding.

The Company, instead of taking stock of changing circumstances and reacting accordingly, has not only failed to adaptively manage these programs towards termination but have aggressively ramped them up. Other stakeholders have noted in their written comments that these programs comprise 43% of the Company's demand-side management portfolio and that for every one heat pump incentivized by the Company twenty natural gas fuel-switching incentives will also be incented.

It seems clear that the fuel-switching programs are more about building natural gas infrastructure and rate base rather than serving the interest of individual customers or the ratepayer population at large. Natural gas marketing may well be in the interest of the shareholder, and the pursuit of such marketing programs should be permitted, but they should not be funded by the electric ratepayer.