

**Template for
Residential DR Measurement and Verification Plan**

Please complete appropriate forms and email to dsr_ops@pjm.com before you submit your registration into eLRS and before May 1 of upcoming Deliver Year.

1. Program overview

Description of program:

A: What end uses (AC, water heater, etc.) at customer home will reduce load and how will the load be reduced/controlled (type of technology used to control, 1 way vs 2 way communication)? [Example - Central air conditioners will be cycled remotely based on 50%, 75% or 100% cycling strategy. Air conditioners are controlled remotely by 1 way radio frequency message. Customers do not have ability to override the AC cycling.]

B: How do customers join and leave the program and what is expected churn rate? [Example - EDC solicits customers for participation through multiple channels (bill stuffer, email, radio, TV) to participate. Customer may join through June and may leave with 1 month notice. Churn rate is typically 5% per year.]

*C: Which PJM markets are you requesting to participate in (capacity, economic energy, synchronized reserves)?
[Example – capacity only]*

2. Expected customer participation in program

Example

Zone	EDC	End Use Control/Strategy & Technology	Participants	Interval Meters (with interval load data)
Zone A	EDC 1	AC only, 50% cycle, Honeywell tstat	20,000	2,000
Zone A	EDC 1	Water Heater only, 50% cycle, X DCU	8,000	500
Zone A	EDC 1	AC & Water Heater, 50% cycle, Homewell tstat and X DCU	10,000	1,000

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Please complete the following expected participation matrix

Zone	EDC	End Use Control	Participants	Interval Meters (with interval load data)

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3. Variance study & associated sample size determination (only need to complete if sample will be used – if you have interval metering for all participants you do not need to complete)

Please complete excel template (VarianceStudy_SampleSelection_Template.xlsx) with details used for variance study that determined sample size. Please explain how customers were selected for variance study and why they are representative of the population of customers.

[Example – customer were randomly selected from population.]

4. Sample selection and stratification (only need to complete if sample will be used – if you have interval metering for all participants you do not need to complete)

Please complete excel template (VarianceStudy_SampleSelection_Template.xlsx) with population, stratification (as appropriate) and associated sample. Please also provide brief description of how you selected sample and any stratification used to ensure the sample reflects the population.

[Example – Randomly stratified sample selected where stratification was based on monthly kwh (population split into 2 strata: =>X kwh and <X kwh). 50% of population included in Strata 1 and 50% of population in strata 2.]

5. Reminders:

- a. *If you use non-utility revenue grade interval meters then please complete the appropriate meter qualification and quality assurance forms*
 - i. Meter qualification form is located on pjm.com under eLRS information here <http://www.pjm.com/~media/etools/elrs/20090904-dsr-customer-ownder-meter-qualification-form.ashx>
 - ii. Meter quality assurance plan is located on pjm.com under eLRS information here
- b. *Please ensure all load data complies with protocol outline in Manual 19, attachment D.*
- c. *Please ensure load data submitted to PJM represents population of participants cycled as outlined in Manual 19, attachment D.*
- d. *Please see pjm website training material for full description of residential M&V rules (<http://www.pjm.com/~media/training/core-curriculum/ip-dsr/residential-measurement-and-verification.ashx>)*