1 Breakdown of ATEs as a Function of Rate Changes

1.1 Using Rate Changes in Peak Hours, Knot = 10

	Dependent Variable									
	Hourly Electricity Consumption (kWh/Hour)									
	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)
HDDs	0.016***	0.042***	0.047***	0.029***	0.045***	0.016***	0.042***	0.047***	0.029***	0.045***
	(0.004)	(0.006)	(0.004)	(0.005)	(0.005)	(0.004)	(0.006)	(0.005)	(0.005)	(0.005)
HDDs*	0.010	0.001	−0.018***	0.005	−0.008	0.010	0.001	−0.018**	0.005	−0.008
	(0.007)	(0.010)	(0.007)	(0.008)	(0.008)	(0.007)	(0.010)	(0.007)	(0.008)	(0.008)
𝟙[Treatment]	−0.020	−0.018	0.064	−0.019	0.023					
	(0.059)	(0.073)	(0.065)	(0.062)	(0.065)					
𝟙[Treatment] × ΔPrice	0.004	0.005	−0.0003	0.005	0.003					
	(0.003)	(0.004)	(0.003)	(0.003)	(0.003)					
𝟙[Treatment] × HDDs	0.001	0.013**	0.009	0.007*	0.011**	0.001	0.013**	0.009	0.007	0.011**
	(0.004)	(0.005)	(0.005)	(0.004)	(0.005)	(0.005)	(0.006)	(0.006)	(0.005)	(0.005)
𝟙[Treatment] × HDDs*	−0.003	−0.011*	−0.014***	−0.007*	−0.013***	−0.003	−0.011	−0.014**	−0.007	−0.013**
	(0.005)	(0.006)	(0.005)	(0.004)	(0.004)	(0.006)	(0.007)	(0.007)	(0.006)	(0.006)
𝟙[Treatment] × HDDs × ΔPrice	−0.00001	−0.0004	0.00003	−0.0002	−0.0002	−0.00001	−0.0004	0.00003	−0.0002	−0.0002
	(0.0002)	(0.0003)	(0.0003)	(0.0002)	(0.0003)	(0.0002)	(0.0003)	(0.0003)	(0.0002)	(0.0003)
𝟙[Treatment] × HDDs* × ΔPrice	0.0001	0.0003	0.0001	0.0002	0.0002	0.0001	0.0003	0.0001	0.0002	0.0002
	(0.0003)	(0.0003)	(0.0003)	(0.0002)	(0.0002)	(0.0003)	(0.0004)	(0.0003)	(0.0003)	(0.0003)
𝟙[Post]	0.013	0.045	0.047	0.029	0.046	0.013	0.045	0.047	0.029	0.046
	(0.022)	(0.036)	(0.040)	(0.026)	(0.035)	(0.024)	(0.038)	(0.042)	(0.028)	(0.036)
𝟙[Post] × HDDs	−0.007	−0.015*	−0.015**	−0.011*	−0.015**	−0.007	−0.015*	−0.015**	−0.011*	−0.015**
	(0.005)	(0.008)	(0.006)	(0.006)	(0.006)	(0.005)	(0.008)	(0.006)	(0.006)	(0.007)

	Dependent Variable									
	Hourly Electricity Consumption (kWh/Hour)									
	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)
$\mathbb{1}$[Post] × HDDs*	0.002	0.007	0.006	0.004	0.007	0.002	0.007	0.006	0.004	0.007
	(0.008)	(0.013)	(0.009)	(0.010)	(0.010)	(0.008)	(0.014)	(0.010)	(0.011)	(0.011)
$\mathbb{1}$[Treatment & Post]	−0.045	−0.028	−0.053	−0.037	−0.040	−0.045	−0.028	−0.053	−0.037	−0.040
	(0.029)	(0.035)	(0.035)	(0.026)	(0.030)	(0.032)	(0.039)	(0.038)	(0.030)	(0.034)
$\mathbb{1}$[Treatment & Post] × ΔPrice	0.002	−0.005**	0.002	−0.001	−0.001	0.002	−0.005**	0.002	−0.001	−0.001
	(0.002)	(0.002)	(0.002)	(0.001)	(0.001)	(0.002)	(0.002)	(0.002)	(0.002)	(0.002)
$\mathbb{1}$[Treatment & Post] × HDDs	−0.0001	−0.010**	−0.001	−0.005	−0.005	−0.0001	−0.010*	−0.001	−0.005	−0.005
	(0.004)	(0.004)	(0.004)	(0.003)	(0.003)	(0.005)	(0.006)	(0.005)	(0.004)	(0.005)
$\mathbb{1}$[Treatment & Post] × HDDs*	0.001	0.012**	0.005	0.007**	0.009**	0.001	0.012	0.005	0.007	0.009
	(0.005)	(0.006)	(0.005)	(0.003)	(0.003)	(0.007)	(0.008)	(0.007)	(0.006)	(0.007)
$\mathbb{1}$[Treatment & Post] × HDDs × ΔPrice	0.00001	0.0002	−0.0001	0.0001	0.0001	0.00001	0.0002	−0.0001	0.0001	0.0001
	(0.0002)	(0.0002)	(0.0003)	(0.0002)	(0.0002)	(0.0002)	(0.0003)	(0.0003)	(0.0002)	(0.0003)
$\mathbb{1}$[Treatment & Post] × HDDs* × ΔPrice	−0.0002	−0.0003	0.00004	−0.0002	−0.0001	−0.0002	−0.0003	0.00004	−0.0002	−0.0001
	(0.0003)	(0.0003)	(0.0003)	(0.0002)	(0.0002)	(0.0004)	(0.0004)	(0.0004)	(0.0003)	(0.0003)
Interval of Hours	15 to 16	17 to 18	19 to 20	15 to 18	17 to 20	15 to 16	17 to 18	19 to 20	15 to 18	17 to 20
Knot	10	10	10	10	10	10	10	10	10	10
FEs: Household by Half-Hourly Time Window	No	No	No	No	No	Yes	Yes	Yes	Yes	Yes
FEs: Day of Week by Half-Hourly Time Window	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Observations	1,006,200	1,006,200	1,006,200	2,012,400	2,012,400	1,006,200	1,006,200	1,006,200	2,012,400	2,012,400
Adjusted R^2	0.024	0.047	0.040	0.059	0.043	0.305	0.368	0.363	0.356	0.365

1.2 Using Rate Changes in Peak Hours, Knot = 10

	Dependent Variable									
	Hourly Electricity Consumption (kWh/Hour)									
	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)
HDDs	0.016^{***}	0.042^{***}	0.047^{***}	0.029^{***}	0.045^{***}	0.016^{***}	0.042^{***}	0.047^{***}	0.029^{***}	0.045^{***}
	(0.004)	(0.006)	(0.004)	(0.005)	(0.005)	(0.004)	(0.006)	(0.005)	(0.005)	(0.005)
HDDs*	0.010	0.001	-0.018^{***}	0.005	-0.008	0.010	0.001	-0.018^{**}	0.005	-0.008
	(0.007)	(0.010)	(0.007)	(0.008)	(0.008)	(0.007)	(0.010)	(0.007)	(0.008)	(0.008)
$\mathbb{1}$[Treatment]	-0.0005	-0.018	0.063	0.088^{*}	0.039					
	(0.051)	(0.073)	(0.056)	(0.048)	(0.050)					
$\mathbb{1}$[Treatment] $\times$ ΔPrice	-0.049	0.005	0.003	-0.007^{**}	0.003					
	(0.037)	(0.004)	(0.040)	(0.003)	(0.003)					
$\mathbb{1}$[Treatment] $\times$ HDDs	0.001	0.013^{**}	0.009^{**}	-0.005^{*}	0.011^{***}	0.001	0.013^{**}	0.009^{*}	-0.005	0.011^{***}
	(0.003)	(0.005)	(0.004)	(0.003)	(0.003)	(0.004)	(0.006)	(0.005)	(0.003)	(0.004)
$\mathbb{1}$[Treatment] $\times$ HDDs*	-0.002	-0.011^{*}	-0.014^{***}	-0.00005	-0.018^{***}	-0.002	-0.011	-0.014^{**}	-0.00005	-0.018^{***}
	(0.004)	(0.006)	(0.004)	(0.003)	(0.003)	(0.005)	(0.007)	(0.006)	(0.004)	(0.004)
$\mathbb{1}$[Treatment] $\times$ HDDs $\times$ ΔPrice	0.0001	-0.0004	-0.0004	0.001^{***}	-0.0004^{*}	0.0001	-0.0004	-0.0004	0.001^{***}	-0.0004^{*}
	(0.003)	(0.0003)	(0.004)	(0.0002)	(0.0002)	(0.003)	(0.0003)	(0.004)	(0.0002)	(0.0002)
$\mathbb{1}$[Treatment] $\times$ HDDs* $\times$ ΔPrice	-0.002	0.0003	-0.001	-0.001^{**}	0.001^{***}	-0.002	0.0003	-0.001	-0.001^{**}	0.001^{***}
	(0.003)	(0.0003)	(0.003)	(0.0003)	(0.0004)	(0.004)	(0.0004)	(0.004)	(0.0003)	(0.0004)
$\mathbb{1}$[Post]	0.013	0.045	0.047	0.029	0.046	0.013	0.045	0.047	0.029	0.046
	(0.022)	(0.036)	(0.040)	(0.026)	(0.035)	(0.024)	(0.038)	(0.042)	(0.028)	(0.036)
$\mathbb{1}$[Post] $\times$ HDDs	-0.007	-0.015^{*}	-0.015^{**}	-0.011^{*}	-0.015^{**}	-0.007	-0.015^{*}	-0.015^{**}	-0.011^{*}	-0.015^{**}
	(0.005)	(0.008)	(0.006)	(0.006)	(0.006)	(0.005)	(0.008)	(0.006)	(0.006)	(0.007)
$\mathbb{1}$[Post] $\times$ HDDs*	0.002	0.007	0.006	0.004	0.007	0.002	0.007	0.006	0.004	0.007
	(0.008)	(0.013)	(0.009)	(0.010)	(0.010)	(0.008)	(0.014)	(0.010)	(0.011)	(0.011)

	Dependent Variable									
	Hourly Electricity Consumption (kWh/Hour)									
	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)
𝟙[Treatment & Post]	−0.036	−0.028	−0.042	−0.031	−0.025	−0.036	−0.028	−0.042	−0.031	−0.025
	(0.024)	(0.035)	(0.029)	(0.019)	(0.025)	(0.027)	(0.039)	(0.032)	(0.023)	(0.027)
𝟙[Treatment & Post] × ΔPrice	−0.025	-0.005^{**}	−0.027	-0.004^{***}	-0.005^{***}	−0.025	-0.005^{**}	−0.027	-0.004^{***}	-0.005^{***}
	(0.021)	(0.002)	(0.022)	(0.001)	(0.002)	(0.022)	(0.002)	(0.024)	(0.001)	(0.002)
𝟙[Treatment & Post] × HDDs	−0.00004	-0.010^{**}	−0.001	0.001	−0.003	−0.00004	-0.010^{*}	−0.001	0.001	−0.003
	(0.003)	(0.004)	(0.003)	(0.002)	(0.003)	(0.004)	(0.006)	(0.004)	(0.003)	(0.004)
𝟙[Treatment & Post] × HDDs*	0.0003	0.012^{**}	0.005	−0.001	0.006^{*}	0.0003	0.012	0.005	−0.001	0.006
	(0.004)	(0.006)	(0.004)	(0.002)	(0.003)	(0.006)	(0.008)	(0.006)	(0.004)	(0.005)
𝟙[Treatment & Post] × HDDs × ΔPrice	−0.0001	0.0002	0.001	-0.001^{**}	−0.0002	−0.0001	0.0002	0.001	-0.001^{**}	−0.0002
	(0.002)	(0.0002)	(0.003)	(0.0003)	(0.0003)	(0.003)	(0.0003)	(0.004)	(0.0003)	(0.0003)
𝟙[Treatment & Post] × HDDs* × ΔPrice	0.003	−0.0003	−0.0005	0.001^{*}	0.0001	0.003	−0.0003	−0.0005	0.001^{*}	0.0001
	(0.003)	(0.0003)	(0.003)	(0.0004)	(0.001)	(0.004)	(0.0004)	(0.005)	(0.0004)	(0.0005)
Interval of Hours	15 to 16	17 to 18	19 to 20	15 to 18	17 to 20	15 to 16	17 to 18	19 to 20	15 to 18	17 to 20
Knot	10	10	10	10	10	10	10	10	10	10
FEs: Household by Half-Hourly Time Window	No	No	No	No	No	Yes	Yes	Yes	Yes	Yes
FEs: Day of Week by Half-Hourly Time Window	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Observations	1,006,200	1,006,200	1,006,200	2,012,400	2,012,400	1,006,200	1,006,200	1,006,200	2,012,400	2,012,400
Adjusted R^2	0.024	0.047	0.040	0.061	0.043	0.305	0.368	0.363	0.358	0.365