

1 Breakdown of ATEs by Tariff Group, Using Rate Changes in Peak Hours

Regression Table(s)

Jinmahn Jo (ID#: 915528897)

1.1 Interval of Hours: 15 to 16, Knot = 10

	Dependent Variable			
	Hourly Electricity Consumption (kWh/Hour)			
	(1)	(2)	(3)	(4)
HDDs	0.016*** (0.004)	0.016*** (0.004)	0.016*** (0.004)	0.015*** (0.004)
HDDs*	0.010 (0.007)	0.009 (0.007)	0.009 (0.007)	0.010 (0.007)
1[Treatment]	0.009 (0.050)	0.106 (0.071)	−0.014 (0.049)	0.174** (0.072)
1[Treatment] × HDDs	0.001 (0.003)	0.004 (0.005)	0.001 (0.003)	0.0003 (0.004)
1[Treatment] × HDDs*	−0.0001 (0.004)	−0.012* (0.006)	0.0004 (0.003)	0.002 (0.005)
1[Post]	0.014 (0.022)	0.015 (0.022)	0.014 (0.022)	0.011 (0.023)
1[Post] × HDDs	−0.007 (0.005)	−0.007 (0.005)	−0.007 (0.005)	−0.006 (0.005)
1[Post] × HDDs*	0.002 (0.008)	0.002 (0.008)	0.002 (0.008)	0.001 (0.008)
1[Treatment & Post]	−0.038 (0.023)	−0.039 (0.030)	0.020 (0.026)	−0.039 (0.038)
1[Treatment & Post] × HDDs	0.001 (0.003)	−0.003 (0.004)	−0.0002 (0.003)	0.001 (0.004)
1[Treatment & Post] × HDDs*	−0.002 (0.004)	0.008 (0.006)	−0.004 (0.004)	−0.005 (0.006)
Tariff Group	A	B	C	D
Interval of Hours	15 to 16	15 to 16	15 to 16	15 to 16
Knot	10	10	10	10
FEs: Household by Half-Hourly Time Window	No	No	No	No
FEs: Day of Week by Half-Hourly Time Window	Yes	Yes	Yes	Yes
Observations	506,540	326,800	511,700	331,960
Adjusted R ²	0.024	0.024	0.023	0.025

Regression Table(s)

Jinmahn Jo (ID#: 915528897)

1.2 Interval of Hours: 17 to 18, Knot = 10

	Dependent Variable			
	Hourly Electricity Consumption (kWh/Hour)			
	(1)	(2)	(3)	(4)
HDDs	0.042*** (0.006)	0.042*** (0.006)	0.042*** (0.006)	0.042*** (0.006)
HDDs*	0.001 (0.010)	0.0004 (0.010)	0.0003 (0.010)	0.001 (0.010)
1[Treatment]	0.017 (0.063)	0.171* (0.093)	−0.022 (0.063)	0.249*** (0.083)
1[Treatment] × HDDs	0.011** (0.004)	0.009 (0.006)	0.005 (0.004)	0.004 (0.006)
1[Treatment] × HDDs*	−0.010* (0.005)	−0.006 (0.007)	−0.007* (0.004)	−0.003 (0.005)
1[Post]	0.044 (0.035)	0.045 (0.036)	0.046 (0.036)	0.043 (0.035)
1[Post] × HDDs	−0.015* (0.008)	−0.015* (0.008)	−0.015* (0.008)	−0.015* (0.008)
1[Post] × HDDs*	0.007 (0.013)	0.008 (0.013)	0.008 (0.013)	0.007 (0.013)
1[Treatment & Post]	−0.057* (0.030)	−0.127*** (0.039)	−0.078** (0.031)	−0.189*** (0.041)
1[Treatment & Post] × HDDs	−0.010*** (0.004)	−0.002 (0.005)	−0.004 (0.003)	−0.009 (0.006)
1[Treatment & Post] × HDDs*	0.013*** (0.005)	0.003 (0.006)	0.005 (0.003)	0.011* (0.006)
Tariff Group	A	B	C	D
Interval of Hours	17 to 18	17 to 18	17 to 18	17 to 18
Knot	10	10	10	10
FEs: Household by Half-Hourly Time Window	No	No	No	No
FEs: Day of Week by Half-Hourly Time Window	Yes	Yes	Yes	Yes
Observations	506,540	326,800	511,700	331,960
Adjusted R ²	0.046	0.044	0.044	0.045

Regression Table(s)

Jinmahn Jo (ID#: 915528897)

1.3 Interval of Hours: 19 to 20, Knot = 10

	Dependent Variable			
	Hourly Electricity Consumption (kWh/Hour)			
	(1)	(2)	(3)	(4)
HDDs	0.047*** (0.004)	0.047*** (0.004)	0.047*** (0.004)	0.047*** (0.004)
HDDs*	-0.018*** (0.007)	-0.018*** (0.007)	-0.018*** (0.007)	-0.018*** (0.007)
1[Treatment]	0.057 (0.055)	0.189** (0.083)	-0.017 (0.052)	0.150** (0.072)
1[Treatment] × HDDs	0.009** (0.004)	0.008 (0.007)	0.008** (0.004)	0.011 (0.007)
1[Treatment] × HDDs*	-0.012*** (0.004)	-0.016** (0.008)	-0.013*** (0.004)	-0.008 (0.007)
1[Post]	0.048 (0.040)	0.049 (0.040)	0.047 (0.040)	0.047 (0.040)
1[Post] × HDDs	-0.015** (0.006)	-0.015** (0.006)	-0.015** (0.006)	-0.015** (0.006)
1[Post] × HDDs*	0.006 (0.009)	0.007 (0.009)	0.006 (0.009)	0.006 (0.009)
1[Treatment & Post]	-0.040 (0.029)	-0.050 (0.037)	0.006 (0.027)	-0.025 (0.040)
1[Treatment & Post] × HDDs	-0.003 (0.003)	0.0005 (0.005)	0.0003 (0.003)	-0.009 (0.006)
1[Treatment & Post] × HDDs*	0.005 (0.004)	0.010 (0.007)	0.004 (0.003)	0.008 (0.006)
Tariff Group	A	B	C	D
Interval of Hours	19 to 20	19 to 20	19 to 20	19 to 20
Knot	10	10	10	10
FEs: Household by Half-Hourly Time Window	No	No	No	No
FEs: Day of Week by Half-Hourly Time Window	Yes	Yes	Yes	Yes
Observations	506,540	326,800	511,700	331,960
Adjusted R ²	0.041	0.040	0.039	0.043

Regression Table(s)

Jinmahn Jo (ID#: 915528897)

1.4 Interval of Hours: 15 to 18, Knot = 10

	Dependent Variable			
	Hourly Electricity Consumption (kWh/Hour)			
	(1)	(2)	(3)	(4)
HDDs	0.029*** (0.005)	0.029*** (0.005)	0.029*** (0.005)	0.029*** (0.005)
HDDs*	0.005 (0.008)	0.005 (0.008)	0.005 (0.008)	0.006 (0.008)
1[Treatment]	0.013 (0.053)	0.138* (0.077)	-0.018 (0.053)	0.211*** (0.070)
1[Treatment] × HDDs	0.006* (0.003)	0.007 (0.004)	0.003 (0.003)	0.002 (0.004)
1[Treatment] × HDDs*	-0.005 (0.004)	-0.009** (0.004)	-0.003 (0.003)	-0.001 (0.003)
1[Post]	0.029 (0.026)	0.030 (0.026)	0.030 (0.026)	0.027 (0.026)
1[Post] × HDDs	-0.011* (0.006)	-0.011* (0.006)	-0.011* (0.006)	-0.011* (0.006)
1[Post] × HDDs*	0.004 (0.010)	0.005 (0.010)	0.005 (0.010)	0.004 (0.010)
1[Treatment & Post]	-0.047** (0.022)	-0.083*** (0.028)	-0.029 (0.022)	-0.114*** (0.033)
1[Treatment & Post] × HDDs	-0.005* (0.002)	-0.002 (0.003)	-0.002 (0.002)	-0.004 (0.004)
1[Treatment & Post] × HDDs*	0.005** (0.003)	0.005 (0.004)	0.001 (0.002)	0.003 (0.003)
Tariff Group	A	B	C	D
Interval of Hours	15 to 18	15 to 18	15 to 18	15 to 18
Knot	10	10	10	10
FEs: Household by Half-Hourly Time Window	No	No	No	No
FEs: Day of Week by Half-Hourly Time Window	Yes	Yes	Yes	Yes
Observations	1,013,080	653,600	1,023,400	663,920
Adjusted R ²	0.061	0.059	0.055	0.057

Regression Table(s)

Jinmahn Jo (ID#: 915528897)

1.5 Interval of Hours: 17 to 20, Knot = 10

	Dependent Variable			
	Hourly Electricity Consumption (kWh/Hour)			
	(1)	(2)	(3)	(4)
HDDs	0.045*** (0.005)	0.045*** (0.005)	0.045*** (0.005)	0.044*** (0.005)
HDDs*	−0.008 (0.007)	−0.009 (0.008)	−0.009 (0.007)	−0.008 (0.008)
1[Treatment]	0.037 (0.055)	0.180** (0.082)	−0.019 (0.054)	0.199*** (0.072)
1[Treatment] × HDDs	0.010*** (0.004)	0.009 (0.006)	0.007* (0.004)	0.008 (0.006)
1[Treatment] × HDDs*	−0.011*** (0.004)	−0.011* (0.006)	−0.010*** (0.003)	−0.005 (0.004)
1[Post]	0.046 (0.035)	0.047 (0.035)	0.047 (0.035)	0.045 (0.035)
1[Post] × HDDs	−0.015** (0.006)	−0.015** (0.006)	−0.015** (0.006)	−0.015** (0.006)
1[Post] × HDDs*	0.007 (0.010)	0.007 (0.010)	0.007 (0.010)	0.006 (0.010)
1[Treatment & Post]	−0.049* (0.026)	−0.089*** (0.032)	−0.036 (0.025)	−0.107*** (0.030)
1[Treatment & Post] × HDDs	−0.006** (0.003)	−0.001 (0.004)	−0.002 (0.002)	−0.009* (0.005)
1[Treatment & Post] × HDDs*	0.009*** (0.003)	0.006 (0.004)	0.005** (0.002)	0.009** (0.004)
Tariff Group	A	B	C	D
Interval of Hours	17 to 20	17 to 20	17 to 20	17 to 20
Knot	10	10	10	10
FEs: Household by Half-Hourly Time Window	No	No	No	No
FEs: Day of Week by Half-Hourly Time Window	Yes	Yes	Yes	Yes
Observations	1,013,080	653,600	1,023,400	663,920
Adjusted R ²	0.043	0.042	0.041	0.044

2 Breakdown of ATEs by Tariff Group, Using Different Rate Changes

Regression Table(s)

Jinmahn Jo (ID#: 915528897)

2.1 Interval of Hours: 15 to 16, Knot = 10

	Dependent Variable			
	Hourly Electricity Consumption (kWh/Hour)			
	(1)	(2)	(3)	(4)
HDDs	0.016*** (0.004)	0.016*** (0.004)	0.016*** (0.004)	0.015*** (0.004)
HDDs*	0.010 (0.007)	0.009 (0.007)	0.009 (0.007)	0.010 (0.007)
1[Treatment]	0.009 (0.050)	0.106 (0.071)	−0.014 (0.049)	0.174** (0.072)
1[Treatment] × HDDs	0.001 (0.003)	0.004 (0.005)	0.001 (0.003)	0.0003 (0.004)
1[Treatment] × HDDs*	−0.0001 (0.004)	−0.012* (0.006)	0.0004 (0.003)	0.002 (0.005)
1[Post]	0.014 (0.022)	0.015 (0.022)	0.014 (0.022)	0.011 (0.023)
1[Post] × HDDs	−0.007 (0.005)	−0.007 (0.005)	−0.007 (0.005)	−0.006 (0.005)
1[Post] × HDDs*	0.002 (0.008)	0.002 (0.008)	0.002 (0.008)	0.001 (0.008)
1[Treatment & Post]	−0.038 (0.023)	−0.039 (0.030)	0.020 (0.026)	−0.039 (0.038)
1[Treatment & Post] × HDDs	0.001 (0.003)	−0.003 (0.004)	−0.0002 (0.003)	0.001 (0.004)
1[Treatment & Post] × HDDs*	−0.002 (0.004)	0.008 (0.006)	−0.004 (0.004)	−0.005 (0.006)
Tariff Group	A	B	C	D
Interval of Hours	15 to 16	15 to 16	15 to 16	15 to 16
Knot	10	10	10	10
FEs: Household by Half-Hourly Time Window	No	No	No	No
FEs: Day of Week by Half-Hourly Time Window	Yes	Yes	Yes	Yes
Observations	506,540	326,800	511,700	331,960
Adjusted R ²	0.024	0.024	0.023	0.025

Regression Table(s)

Jinmahn Jo (ID#: 915528897)

2.2 Interval of Hours: 17 to 18, Knot = 10

	Dependent Variable			
	Hourly Electricity Consumption (kWh/Hour)			
	(1)	(2)	(3)	(4)
HDDs	0.042*** (0.006)	0.042*** (0.006)	0.042*** (0.006)	0.042*** (0.006)
HDDs*	0.001 (0.010)	0.0004 (0.010)	0.0003 (0.010)	0.001 (0.010)
1[Treatment]	0.017 (0.063)	0.171* (0.093)	−0.022 (0.063)	0.249*** (0.083)
1[Treatment] × HDDs	0.011** (0.004)	0.009 (0.006)	0.005 (0.004)	0.004 (0.006)
1[Treatment] × HDDs*	−0.010* (0.005)	−0.006 (0.007)	−0.007* (0.004)	−0.003 (0.005)
1[Post]	0.044 (0.035)	0.045 (0.036)	0.046 (0.036)	0.043 (0.035)
1[Post] × HDDs	−0.015* (0.008)	−0.015* (0.008)	−0.015* (0.008)	−0.015* (0.008)
1[Post] × HDDs*	0.007 (0.013)	0.008 (0.013)	0.008 (0.013)	0.007 (0.013)
1[Treatment & Post]	−0.057* (0.030)	−0.127*** (0.039)	−0.078** (0.031)	−0.189*** (0.041)
1[Treatment & Post] × HDDs	−0.010*** (0.004)	−0.002 (0.005)	−0.004 (0.003)	−0.009 (0.006)
1[Treatment & Post] × HDDs*	0.013*** (0.005)	0.003 (0.006)	0.005 (0.003)	0.011* (0.006)
Tariff Group	A	B	C	D
Interval of Hours	17 to 18	17 to 18	17 to 18	17 to 18
Knot	10	10	10	10
FEs: Household by Half-Hourly Time Window	No	No	No	No
FEs: Day of Week by Half-Hourly Time Window	Yes	Yes	Yes	Yes
Observations	506,540	326,800	511,700	331,960
Adjusted R ²	0.046	0.044	0.044	0.045

Regression Table(s)

Jinmahn Jo (ID#: 915528897)

2.3 Interval of Hours: 19 to 20, Knot = 10

	Dependent Variable			
	Hourly Electricity Consumption (kWh/Hour)			
	(1)	(2)	(3)	(4)
HDDs	0.047*** (0.004)	0.047*** (0.004)	0.047*** (0.004)	0.047*** (0.004)
HDDs*	-0.018*** (0.007)	-0.018*** (0.007)	-0.018*** (0.007)	-0.018*** (0.007)
1[Treatment]	0.057 (0.055)	0.189** (0.083)	-0.017 (0.052)	0.150** (0.072)
1[Treatment] × HDDs	0.009** (0.004)	0.008 (0.007)	0.008** (0.004)	0.011 (0.007)
1[Treatment] × HDDs*	-0.012*** (0.004)	-0.016** (0.008)	-0.013*** (0.004)	-0.008 (0.007)
1[Post]	0.048 (0.040)	0.049 (0.040)	0.047 (0.040)	0.047 (0.040)
1[Post] × HDDs	-0.015** (0.006)	-0.015** (0.006)	-0.015** (0.006)	-0.015** (0.006)
1[Post] × HDDs*	0.006 (0.009)	0.007 (0.009)	0.006 (0.009)	0.006 (0.009)
1[Treatment & Post]	-0.040 (0.029)	-0.050 (0.037)	0.006 (0.027)	-0.025 (0.040)
1[Treatment & Post] × HDDs	-0.003 (0.003)	0.0005 (0.005)	0.0003 (0.003)	-0.009 (0.006)
1[Treatment & Post] × HDDs*	0.005 (0.004)	0.010 (0.007)	0.004 (0.003)	0.008 (0.006)
Tariff Group	A	B	C	D
Interval of Hours	19 to 20	19 to 20	19 to 20	19 to 20
Knot	10	10	10	10
FEs: Household by Half-Hourly Time Window	No	No	No	No
FEs: Day of Week by Half-Hourly Time Window	Yes	Yes	Yes	Yes
Observations	506,540	326,800	511,700	331,960
Adjusted R ²	0.041	0.040	0.039	0.043

Regression Table(s)

Jinmahn Jo (ID#: 915528897)

2.4 Interval of Hours: 15 to 18, Knot = 10

	Dependent Variable			
	Hourly Electricity Consumption (kWh/Hour)			
	(1)	(2)	(3)	(4)
HDDs	0.029*** (0.005)	0.029*** (0.005)	0.029*** (0.005)	0.029*** (0.005)
HDDs*	0.005 (0.008)	0.005 (0.008)	0.005 (0.008)	0.006 (0.008)
1[Treatment]	0.013 (0.053)	0.138* (0.077)	-0.018 (0.053)	0.211*** (0.070)
1[Treatment] × HDDs	0.006* (0.003)	0.007 (0.004)	0.003 (0.003)	0.002 (0.004)
1[Treatment] × HDDs*	-0.005 (0.004)	-0.009** (0.004)	-0.003 (0.003)	-0.001 (0.003)
1[Post]	0.029 (0.026)	0.030 (0.026)	0.030 (0.026)	0.027 (0.026)
1[Post] × HDDs	-0.011* (0.006)	-0.011* (0.006)	-0.011* (0.006)	-0.011* (0.006)
1[Post] × HDDs*	0.004 (0.010)	0.005 (0.010)	0.005 (0.010)	0.004 (0.010)
1[Treatment & Post]	-0.047** (0.022)	-0.083*** (0.028)	-0.029 (0.022)	-0.114*** (0.033)
1[Treatment & Post] × HDDs	-0.005* (0.002)	-0.002 (0.003)	-0.002 (0.002)	-0.004 (0.004)
1[Treatment & Post] × HDDs*	0.005** (0.003)	0.005 (0.004)	0.001 (0.002)	0.003 (0.003)
Tariff Group	A	B	C	D
Interval of Hours	15 to 18	15 to 18	15 to 18	15 to 18
Knot	10	10	10	10
FEs: Household by Half-Hourly Time Window	No	No	No	No
FEs: Day of Week by Half-Hourly Time Window	Yes	Yes	Yes	Yes
Observations	1,013,080	653,600	1,023,400	663,920
Adjusted R ²	0.061	0.059	0.055	0.057

Regression Table(s)

Jinmahn Jo (ID#: 915528897)

2.5 Interval of Hours: 17 to 20, Knot = 10

	Dependent Variable			
	Hourly Electricity Consumption (kWh/Hour)			
	(1)	(2)	(3)	(4)
HDDs	0.045*** (0.005)	0.045*** (0.005)	0.045*** (0.005)	0.044*** (0.005)
HDDs*	−0.008 (0.007)	−0.009 (0.008)	−0.009 (0.007)	−0.008 (0.008)
1[Treatment]	0.037 (0.055)	0.180** (0.082)	−0.019 (0.054)	0.199*** (0.072)
1[Treatment] × HDDs	0.010*** (0.004)	0.009 (0.006)	0.007* (0.004)	0.008 (0.006)
1[Treatment] × HDDs*	−0.011*** (0.004)	−0.011* (0.006)	−0.010*** (0.003)	−0.005 (0.004)
1[Post]	0.046 (0.035)	0.047 (0.035)	0.047 (0.035)	0.045 (0.035)
1[Post] × HDDs	−0.015** (0.006)	−0.015** (0.006)	−0.015** (0.006)	−0.015** (0.006)
1[Post] × HDDs*	0.007 (0.010)	0.007 (0.010)	0.007 (0.010)	0.006 (0.010)
1[Treatment & Post]	−0.049* (0.026)	−0.089*** (0.032)	−0.036 (0.025)	−0.107*** (0.030)
1[Treatment & Post] × HDDs	−0.006** (0.003)	−0.001 (0.004)	−0.002 (0.002)	−0.009* (0.005)
1[Treatment & Post] × HDDs*	0.009*** (0.003)	0.006 (0.004)	0.005** (0.002)	0.009** (0.004)
Tariff Group	A	B	C	D
Interval of Hours	17 to 20	17 to 20	17 to 20	17 to 20
Knot	10	10	10	10
FEs: Household by Half-Hourly Time Window	No	No	No	No
FEs: Day of Week by Half-Hourly Time Window	Yes	Yes	Yes	Yes
Observations	1,013,080	653,600	1,023,400	663,920
Adjusted R ²	0.043	0.042	0.041	0.044