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* Attachment 4J - STATA DO File

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**** READ ME ****

* To run the do-file, the user should enter its folder path directory containing Attachments 4B through 4K.

* Please note that all other Attachments should be closed before running the do-file.

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*/

**** SETUP ****

```
clear
```

```
* Enter folder path directory containing data: cd "ENTER DIRECTORY HERE"
```

```
**** Get Model Outputs (2018 only) ****
```

```
clear
```

```
import excel using "Attachment 4H - STATA Inputs.xlsx", firstrow
```

```
* Cleaning site names
```

```
rename Customer MPID_name
```

```
replace MPID_name = "MPID_MISC#2" if MPID_name == "MPID_MISC2"
```

```
replace MPID_name = "MPID_MISC#3" if MPID_name == "MPID_MISC3"
```

```
replace MPID_name = "MPID_MISC#4" if MPID_name == "MPID_MISC4"
```

```
replace MPID_name = "MPID_MISC#6" if MPID_name == "MPID_MISC6"
```

```
**** Combine model outputs with mapping data ****
```

```
merge 1:1 MPID_name using "Attachment 4I - Site Level Data.dta"
```

```
**** Analysis ****
```

```
** Construct variables for regression **
```

```
* Rename Model Outputs
```

```
rename Difference CostSavingsfromSelfGen
```

```
gen optimal_BTF_load_2018 = Production
```

```
* Create ISD Dummy
```

```
gen has_ISD = 0
```

```
replace has_ISD = 1 if ISD == "Y"
```

```
* Create City Dummy
```

```
tab REGION, gen(AESO_region)
```

```
gen cityregion = 0
```

```
replace cityregion = 1 if REGION == "Edmonton" | REGION == "Calgary"
```

```
* Create Industry Dummies
```

```
gen TI_wood = 0
```

```

replace TI_wood = 1 if typeofindustry == "Wood Products" | typeofindustry == "Pulp & Paper"
gen TI_oilsands = 0
replace TI_oilsands = 1 if strpos(typeofindustry,"Oilsand")
gen TI_pipeline = 0
replace TI_pipeline = 1 if typeofindustry == "Pipeline" | typeofindustry == "(Pipeline)"
gen TI_other = 0
replace TI_other = 1 if (TI_wood == 0 & TI_oilsands == 0 & TI_pipeline == 0 & typeofindustry !=
"")

```

**** Run regressions ****

*** MW Model**

```

reg BTF_load_2018 optimal_BTF_load_2018 has_ISD#c.optimal_BTF_load_2018
    cityregion#c.optimal_BTF_load_2018 c.optimal_BTF_load_2018#TI_*
c.optimal_BTF_load_2018#c.ContractCapacity

```

*** Save Outputs**

```
mat A = e(b)
```

```
mat list A
```

```
mat rownames A = "actual_BTF_load_2018"
```

```
putexcel set " Attachment 4K - Estimates of Customer Response.xlsx", modify sheet("STATA MW
Model", replace)
```

```
putexcel A2 = matrix(A), names
```

*** Cost Model**

```

reg BTF_load_2018 CostSavingsfromSelfGen has_ISD#c.CostSavingsfromSelfGen
    cityregion#c.CostSavingsfromSelfGen c.CostSavingsfromSelfGen#TI_*
c.CostSavingsfromSelfGen#c.ContractCapacity

```

*** Save Outputs**

```
mat B = e(b)
```

```
mat list B
```

```
mat rownames B = "actual_BTF_load_2018"
```

```
putexcel set "Attachment 4K - Estimates of Customer Response.xlsx", modify sheet("STATA Cost Model", replace)
```

```
putexcel A2 = matrix(B), names
```

```
* Save Data
```

```
export excel using " Attachment 4K - Estimates of Customer Response.xlsx", sheet("STATA Data", replace) firstrow(variables)
```

```
* -----
```

```
* -----
```