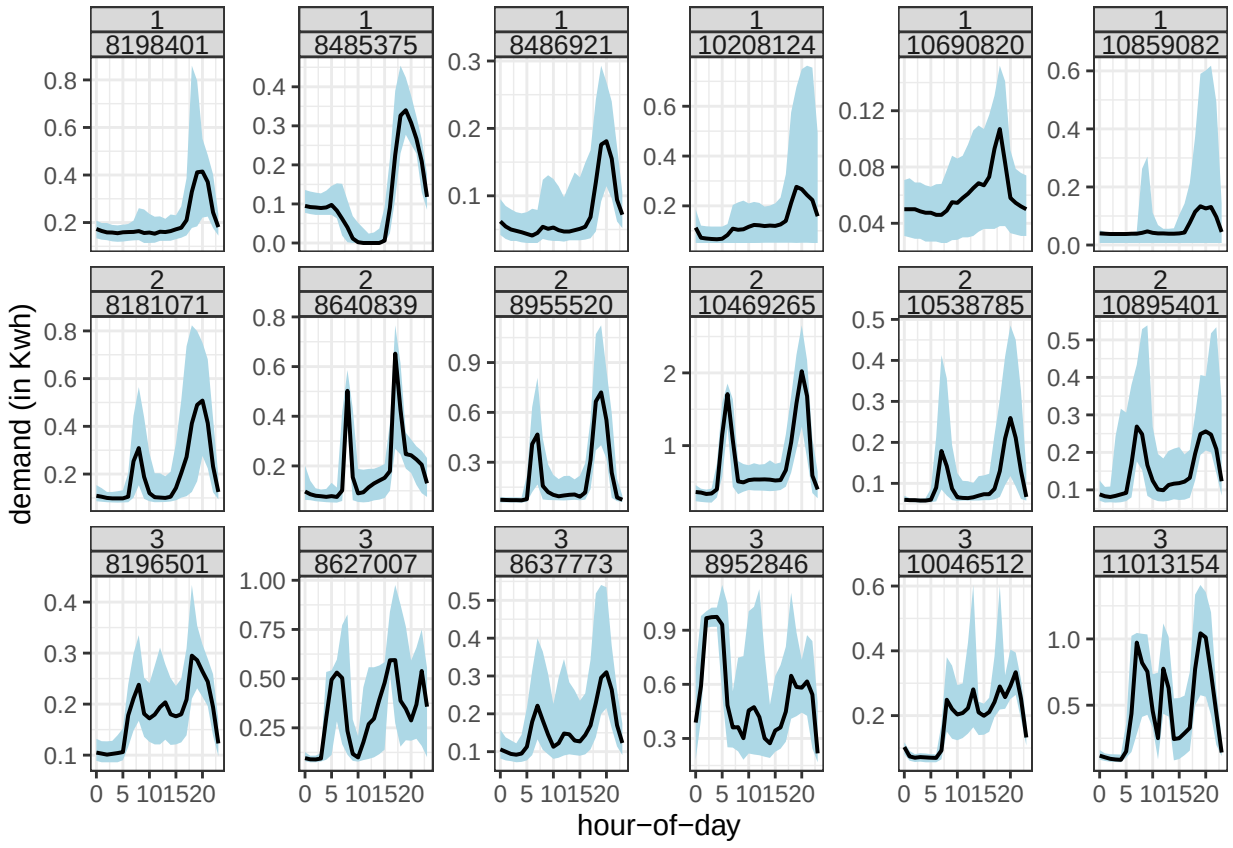
Hand picking similar behaving group of customers to check clustering results



quantile_prob_val = c(0.5, 0.75)

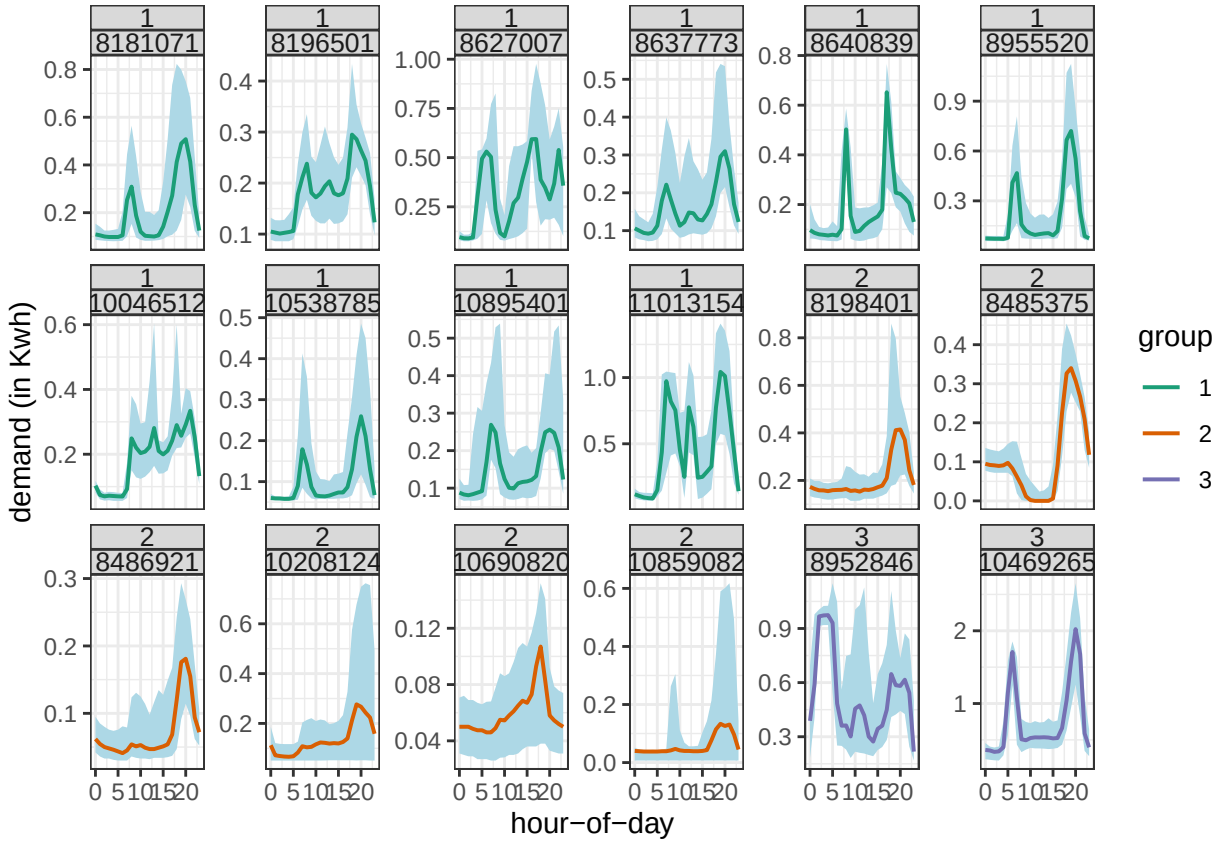
only hod

```
quantile_prob_val = c(0.5, 0.75)
#data_pick <- data_pick %>% filter(!(customer_id %in% c(8485375, 8952846)))
library(gracsr)
v2 <- suppressWarnings(
  scaled_dist_gran(data_pick, "hour_day",
                   response = "general_supply_kwh",
                   quantile_prob_val = quantile_prob_val)) %>% rename("dist_hod" = "dist")
v3 <- suppressWarnings(
  scaled_dist_gran(data_pick, "day_month",
                   response = "general_supply_kwh",
                   quantile_prob_val = quantile_prob_val)) %>% rename("dist_dom" = "dist")

data_dist <- v3 %>%
  left_join(v2) %>%
```

```
  mutate(dist = dist_hod) %>%
    pivot_wider(-c(3, 4),
                names_from = customer_to,
              values_from = dist) %>%
  rename("customer_id" = "customer_from")
```

```
## # A tibble: 3 x 2
##   group     n
##   <int> <int>
## 1     1    10
## 2     2     6
## 3     3     2
```

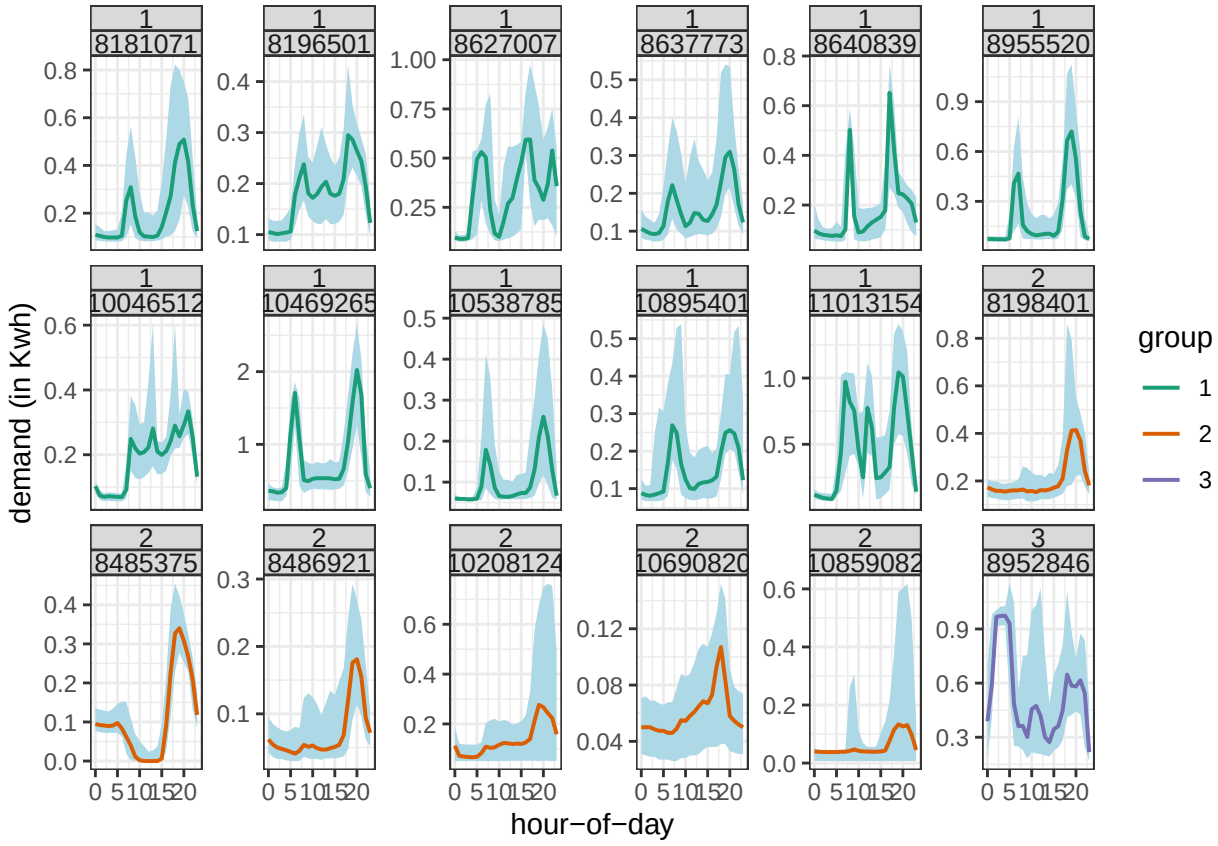


hod + dom

```
#data_pick <- data_pick %>% filter(!(customer_id %in% c(8485375, 8952846)))
library(gracsr)
v2 <- suppressWarnings(
  scaled_dist_gran(data_pick, "hour_day",
                   response = "general_supply_kwh",
                   quantile_prob_val = quantile_prob_val)) %>% rename("dist_hod" = "dist")
v3 <- suppressWarnings(
  scaled_dist_gran(data_pick, "day_month",
                   response = "general_supply_kwh",
                   quantile_prob_val = quantile_prob_val)) %>% rename("dist_dom" = "dist")
```

```
data_dist <- v3 %>%
  left_join(v2) %>%
  mutate(dist = dist_hod + dist_dom) %>%
    pivot_wider(-c(3, 4),
                names_from = customer_to,
              values_from = dist) %>%
  rename("customer_id" = "customer_from")
```

```
## # A tibble: 3 x 2
##   group     n
##   <int> <int>
## 1     1    11
## 2     2     6
## 3     3     1
```



quantile_prob_val = seq(0.1, 0.9, 0.1)

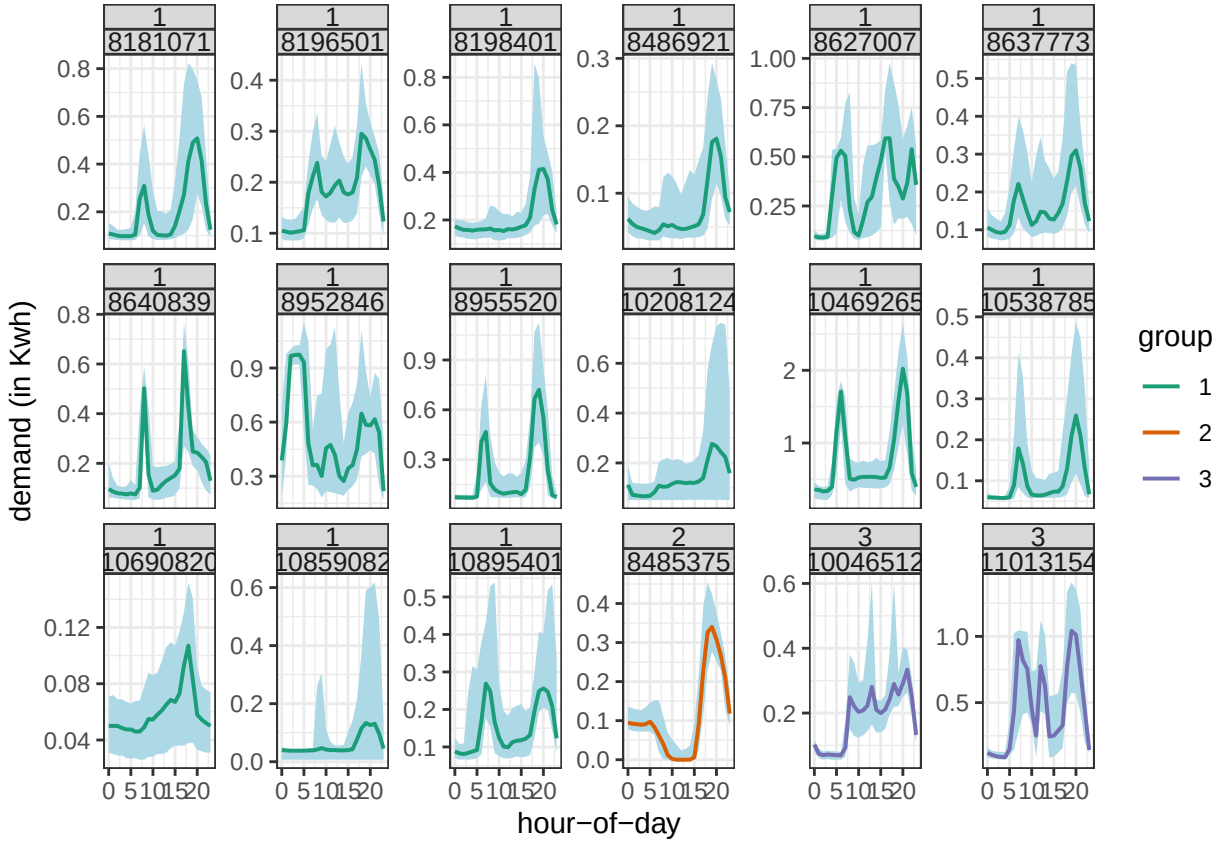
only hod

```
quantile_prob_val = seq(0.1, 0.9, 0.1)
#data_pick <- data_pick %>% filter(!(customer_id %in% c(8485375, 8952846)))
library(gracsr)
v2 <- suppressWarnings(
  scaled_dist_gran(data_pick, "hour_day",
                   response = "general_supply_kwh",
                   quantile_prob_val = quantile_prob_val)) %>% rename("dist_hod" = "dist")
```

```
v3 <- suppressWarnings(
  scaled_dist_gran(data_pick, "day_month",
                   response = "general_supply_kwh",
                   quantile_prob_val = quantile_prob_val)) %>% rename("dist_dom" = "dist")

data_dist <- v3 %>%
  left_join(v2) %>%
  mutate(dist = dist_hod) %>%
    pivot_wider(-c(3, 4),
                names_from = customer_to,
              values_from = dist) %>%
  rename("customer_id" = "customer_from")
```

```
## # A tibble: 3 x 2
##   group     n
##   <int> <int>
## 1     1    15
## 2     2     1
## 3     3     2
```



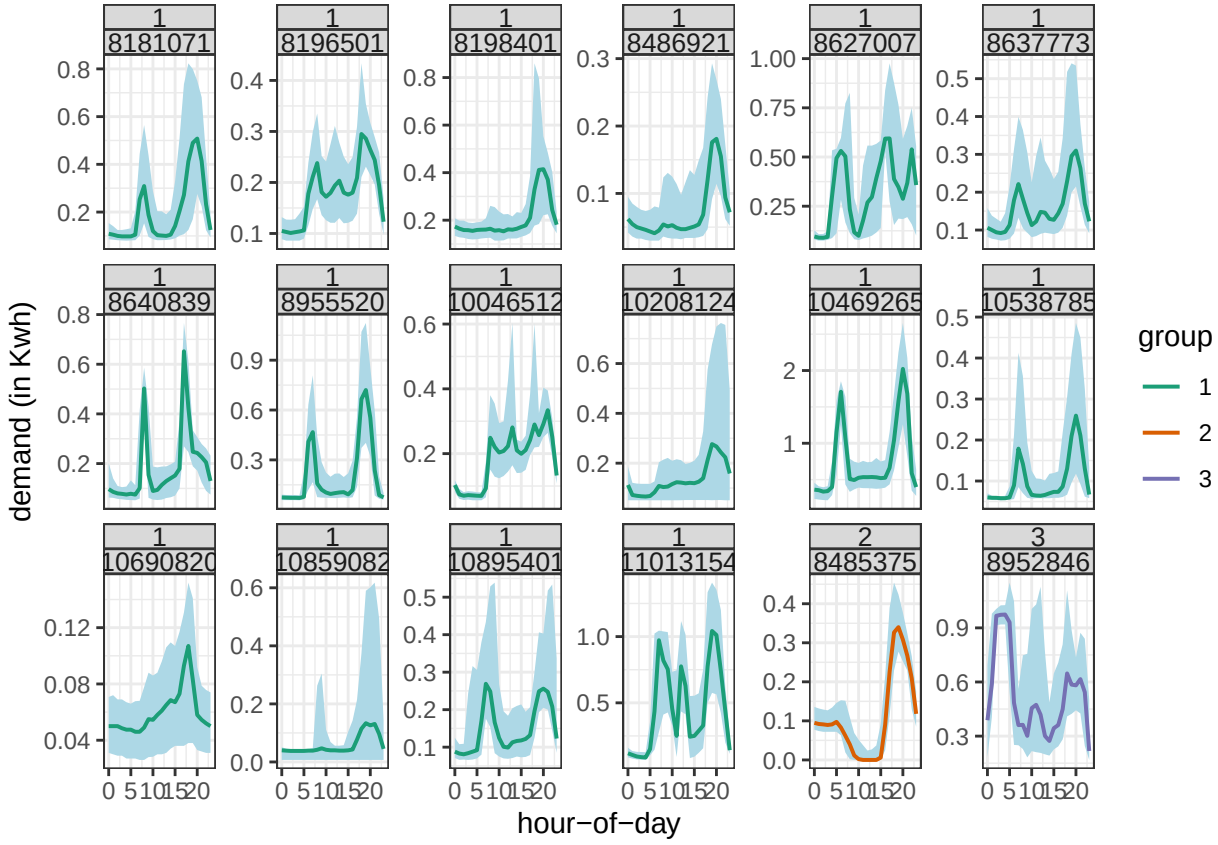
hod + dom

```
#data_pick <- data_pick %>% filter(!(customer_id %in% c(8485375, 8952846)))
library(gracsr)
v2 <- suppressWarnings(
  scaled_dist_gran(data_pick, "hour_day",
```

```
                    response = "general_supply_kwh",
                    quantile_prob_val = quantile_prob_val)) %>% rename("dist_hod" = "dist")
v3 <- suppressWarnings(
  scaled_dist_gran(data_pick, "day_month",
                    response = "general_supply_kwh",
                    quantile_prob_val = quantile_prob_val)) %>% rename("dist_dom" = "dist")

data_dist <- v3 %>%
  left_join(v2) %>%
  mutate(dist = dist_hod + dist_dom) %>%
    pivot_wider(-c(3, 4),
                names_from = customer_to,
              values_from = dist) %>%
  rename("customer_id" = "customer_from")
```

```
## # A tibble: 3 x 2
##   group     n
##   <int> <int>
## 1     1    16
## 2     2     1
## 3     3     1
```



remove the outlier and run again

```
quantile_prob_val = c(0.5, 0.75)
data_pick <- data_pick %>% filter(!(customer_id %in% 8952846))
```

```
library(gracsr)
v2 <- suppressWarnings(
  scaled_dist_gran(data_pick, "hour_day",
                   response = "general_supply_kwh",
                   quantile_prob_val = quantile_prob_val)) %>% rename("dist_hod" = "dist")
v3 <- suppressWarnings(
  scaled_dist_gran(data_pick, "day_month",
                   response = "general_supply_kwh",
                   quantile_prob_val = quantile_prob_val)) %>% rename("dist_dom" = "dist")

data_dist <- v3 %>%
  left_join(v2) %>%
  mutate(dist = dist_hod + dist_dom) %>%
    pivot_wider(-c(3, 4),
                names_from = customer_to,
              values_from = dist) %>%
  rename("customer_id" = "customer_from")
```

```
## # A tibble: 3 x 2
##   group     n
##   <int> <int>
## 1     1     7
## 2     2     4
## 3     3     6
```