

Food Services Subcommittee Meeting #2



AYAD AL-SHAIKH
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Topics to Cover

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- Materials:
 - Food Services, Sub Comm Mtg #2, r2.xls
 - Technology Summary - 2.0 Food Service r3.1.xls
- Finalize Savings Discrepancies
 - First 10 measures
- Cost Questions
- Offerings
- Review select attributes
- Permutation Review
- Sources:
 - Test documents

Finalize Savings Discrepancies

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- 30% Disposition (energy and demand)
 - 2.01, Commercial Convection Oven
 - 2.05, Commercial Steamers
 - 2.08, Commercial Conveyor Oven-Gas (not included now)
 - 2.11, Commercial Gas & Electric Fryers – solid now (18 sites)
- Days of Operation
 - Use 365 days/yr
 - ✦ 2.03 (SCE), Commercial Combination Oven
 - ✦ 2.04 (SCE), Commercial Griddles
 - ✦ Makes consistent throughout category
 - Part of documenting inputs to solve the 30% Disposition issue
 - ✦ May change the value for annual operating hours per year

Finalize Savings Discrepancies

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- Updating savings to reflect current QPL
 - ❑ Discuss methodology for determining values
 - ❑ 2.01, Commercial Convection Oven – increase (-1% to 31%)
 - ❑ 2.02, Commercial Dishwashers – not applicable
 - ❑ 2.03, Commercial Combination Oven – increase (50% to 151%)
 - ❑ 2.04, Commercial Griddles – increase (22% to 108%)*
 - ❑ 2.05, Commercial Steamers – little change (-1% to 3%)
 - ❑ 2.06, Commercial Ice Machines – decrease (-15% to -25%)
 - ❑ 2.07, Insulated Hot Food Holding Cabinets – little change (-3% to -6%)
 - ❑ 2.08, Commercial Conveyor Oven-Gas – increase (78%)
 - ❑ 2.09, Commercial Electric Deck Oven – not applicable
 - ❑ 2.10, Commercial Hand Wrap Machines – not applicable
 - ❑ 2.11, Gas & Electric Fryers – little change (-1% to 6%)
 - ❑ 2.12, Exhaust Hood Demand Controlled Ventilation – not applicable
 - ❑ 2.13, Low-Flow Pre-Rinse Spray Valves Direct Install – not applicable
 - ❑ 2.14, Rack Oven – increase (18% to 36%)
 - ❑ 2.17, Com High Density Universal Holding Cabinet – not completed yet

“not applicable” = Not using QPL specs.

Finalize Savings Discrepancies

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- Specific Measures
 - 2.04, Commercial Griddles
 - ✦ Determine how to account for “double” units (gas and electric)”
 - 2.10, Commercial Hand Wrap Machines
 - ✦ Take average rather than average of averages
 - ✦ Slightly increases savings (~2%)

Cost Consensus

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- Cost adjustment factor to convert the manufacturer published list prices to the estimated equipment cost
 - Typically used 50% reduction factor, except:
 - SDG&E uses a 40% reduction factor for:
 - ✦ 2.06, Commercial Ice Machines
 - ✦ 2.07, Insulated Hot Food Holding Cabinets
 - ✦ 2.08, Com Conveyor Oven-Gas
 - ✦ 2.14, Rack Oven
 - No factor used:
 - ✦ 2.02, Commercial Dishwashers (Source of cost?)
 - ✦ 2.10, Com Hand Wrap Machines (Source? From market research)
 - ✦ 2.12, Exhaust Hood Demand Controlled Vent. (project cost data)
 - ✦ 2.13, Low-Flow Pre-Rinse Spray Valves (project cost data)

Cost

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- Can't reproduce costs – Any specific IOU contact?
 - ❑ 2.01, Com Convection Oven
 - ❑ 2.02, Commercial Dishwashers
 - ❑ 2.03, Commercial Combination Oven
 - ❑ 2.06, Commercial Ice Machines
 - ❑ 2.07, Insulated Hot Food Holding Cabinets – (not checked)
 - ❑ 2.11, Gas & Electric Fryers
- Tax included
 - ❑ 2.09, Commercial Electric Deck Oven
 - ❑ 2.10, Commercial Hand Wrap Machines
- Rounding
 - ❑ Include 2 significant digits? Nearest \$10 or \$100?
- Age of cost data
 - ❑ Often from 2012

Offerings

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❑ 2.01, Commercial Convection Oven

- ✦ Gas – Half / Full / ~~Large Full~~
- ✦ Electric – Half / Full / ~~Large Full~~
- ✦ Note: No Gas or Electric Large Full units on QPL

No QPL data

No QPL data

❑ 2.02, Commercial Dishwashers

- ✦ Low Temp / High Temp
- ✦ Tier 1 / Tier 2

Not offered?

❑ 2.03, Commercial Combination Oven

- ✦ Gas – <15 pans, 15-28 pans, >28 pans
- ✦ Electric – <15 pans, 15-28 pans, >28 pans
- ✦ Note: No Electric >28 pan units on QPL

No QPL data

❑ 2.04, Commercial Griddles

- ✦ Gas / Electric
- ✦ Not currently used: Single / Double

Offerings

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- ❑ 2.05, Commercial Steamers
 - ✦ Gas / Electric
 - ✦ Not currently used: Broilerless / Steam Generator
- ❑ 2.06, Commercial Ice Machines
 - ✦ 5 Sizes ~~vs 7 Sizes~~
 - ✦ Super Efficient ~~vs Energy Star / Tier III~~
- ❑ 2.07, Insulated Hot Food Holding Cabinets
 - ✦ Electric
 - ✦ Half / ~~Three-Quarter~~ / Full
- ❑ 2.08, Commercial Conveyor Oven-Gas
 - ✦ ~~<=25"~~, >25"
 - ✦ Note: No <=25" width units on QPL
- ❑ 2.09, Commercial Electric Deck Oven
 - ✦ Electric only
- ❑ 2.10, Commercial Hand Wrap Machines
 - ✦ Electric only

No QPL data

Offerings

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- ❑ 2.11, Gas & Electric Fryers
 - ✦ Gas / Electric
- ❑ 2.12, Exhaust Hood Demand Controlled Ventilation
 - ✦ Rated-HP vs Building Type / Climate Zone
- ❑ 2.13, Low-Flow Pre-Rinse Spray Valves
 - ✦ 1 Permutation vs Measure Flow / Climate Zone
- ❑ 2.14, Rack Oven
 - ✦ Gas
 - ✦ Single, Double
 - ✦ Note: limited data for Single

Review Select Attributes

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- Some Measures will not be offered through Mid-Stream (NonUpStream) channels
 - ❑ 2.02, Commercial Dishwashers
 - ❑ 2.06, Commercial Ice Machines
 - ❑ 2.07, Insulated Hot Food Holding Cabinets
 - ❑ 2.09, Commercial Electric Deck Oven
 - ❑ 2.10, Commercial Hand Wrap Machines
 - ❑ 2.11, Gas & Electric Fryers
- Use Category
 - ❑ 2.02, Commercial Dishwashers (AppPlug)
 - ❑ 2.06, Commercial Ice Machines (ComRefrig)
- EUL ID
 - ❑ 2.02, Commercial Dishwashers (from Appl-DW-Dtu, to Appl-EffDW)

Permutation Review

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- Climate Zone / Water Temperature Variation
 - 2.02, Commercial Dishwashers
 - ✦ Values currently averaged over climate zones
 - One value using PG&E CZ's
 - ✦ Consider improving with a weighted average
 - Does someone have data to support this?
 - Water temperature – 9% (std dev) -> 8% gas / 0.4% electric
 - Number of racks per year = 40% (std dev) -> 41% gas & elec
 - ✦ Recommend keeping the averaged approach that is approved now
 - (see “Dishmachine Calcs 02092015 (with std dev info).xls”)

Permutation Review

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• 2.13, Low-Flow Pre-Rinse Spray Valves

□ Hours per day

- ✦ Recommend keeping Baseline / Measure case values the same based upon best available data
 - Need to review and reference
 - SCG – 26% increase
- ✦ SDG&E reference:
 - Source: "Pre-Rinse Spray Valves Programs: How Are They Really Doing"
 - Source: "Impact and Process Evaluation Final Report for California Urban Water Conservation Council 2004-5 Pre Rinse Spray Valve Installation Program (Phase 2)"

□ Baseline flow rate (1.6 vs 1.4)

- ✦ SDG&E reference:
 - 1.6gpm - Energy Policy Act 2005, Section 119 Stat 632, pp 40

Permutation Review

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- 2.13, Low-Flow Pre-Rinse Spray Valves
 - Climate Zone / Water Temperature Variation
 - ✦ 7% change in water temp (1 sd) ~ 9% change in gas savings
 - ✦ Temperature is a significant variable
 - ✦ Recommend including CZ as a parameter but consider collapsing