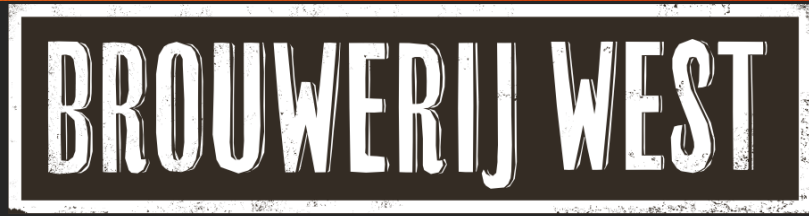


# Sustainability for Small Craft Breweries



Brouwerij West | San Pedro, CA  
LA Industry Microbrewery Symposium  
October 4, 2018

# Outline



- Green Initiatives at Brouwerij West
- Limitations
- Resources for Small Breweries in LA

# Solar-Powered

- 1.2 megawatt (MW) rooftop array
- Will generate an estimated 40 million kWh over 20 years, mitigating about 37,600 tons of carbon—the equivalent emissions of 331 homes, or taking 400 cars off the streets of Los Angeles
- The roof-mounted solar panels cool the roof during the hot summer months
- LADWP “Feed-in Tariff” (FiT) Program





# Mash Filter

- No Lauter Tun
- Instead, Mash Filter
  - Meura 2001 Micro
- Less Time / Less Labor
- Less Water: 25%-50%



# Mash Filter

- Less Raw Materials
  - Higher yields - 90-95% typical
  - Lower hop consumption
- Spent Grain has More Dry Matter (30% vs 20%)
- Brewing: Can use wide variety of raw grains without worry of stuck mash



Photo Credit: John Verive

# Reduce / Reuse / Recycle

- Core Company Value
  - Buy-In from Entire Team
  - Empower Employees to Suggest Ideas / Take Ownership
  - Environmental Team Leader
    - Manage and Develop Green Initiatives
- Spent Grain
  - Farmers
  - Compost
  - Dog Treats
- Recycling Program / RecycLA
  - No Compost... yet



# Limitations for Small Brewers

- Capital
  - Many systems, e.g., anaerobic digestors, are prohibitively expensive (\$\$\$\$\$) and not built for small scale manufacturers
  - Generally, only large breweries have the capital available to put those additional systems into place, even if attractive ROI
  - But, there are Incentive Programs
- Labor Commitment
  - We have 1 employee doing it part-time
  - Hard to commit the time and money to it
- Benchmarking & Auditing
  - Resources? Outside consultants?

# Resources Available

- City of LA EWDD Small Business Loan Program
- State & Local Programs / Utility Company Programs
  - Talk To Your Local Representatives at Each Level of Government
  - Or, folks from Departments here Today
- Energy & Water Audits
- Brewers Association Resources
  - Brewers Association Website → Best Practices → Sustainability
  - Manuals on: Energy, Solid Waste, Water & Wastewater, and Design & Build Strategies
  - Great Case Studies



# Thank You!

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