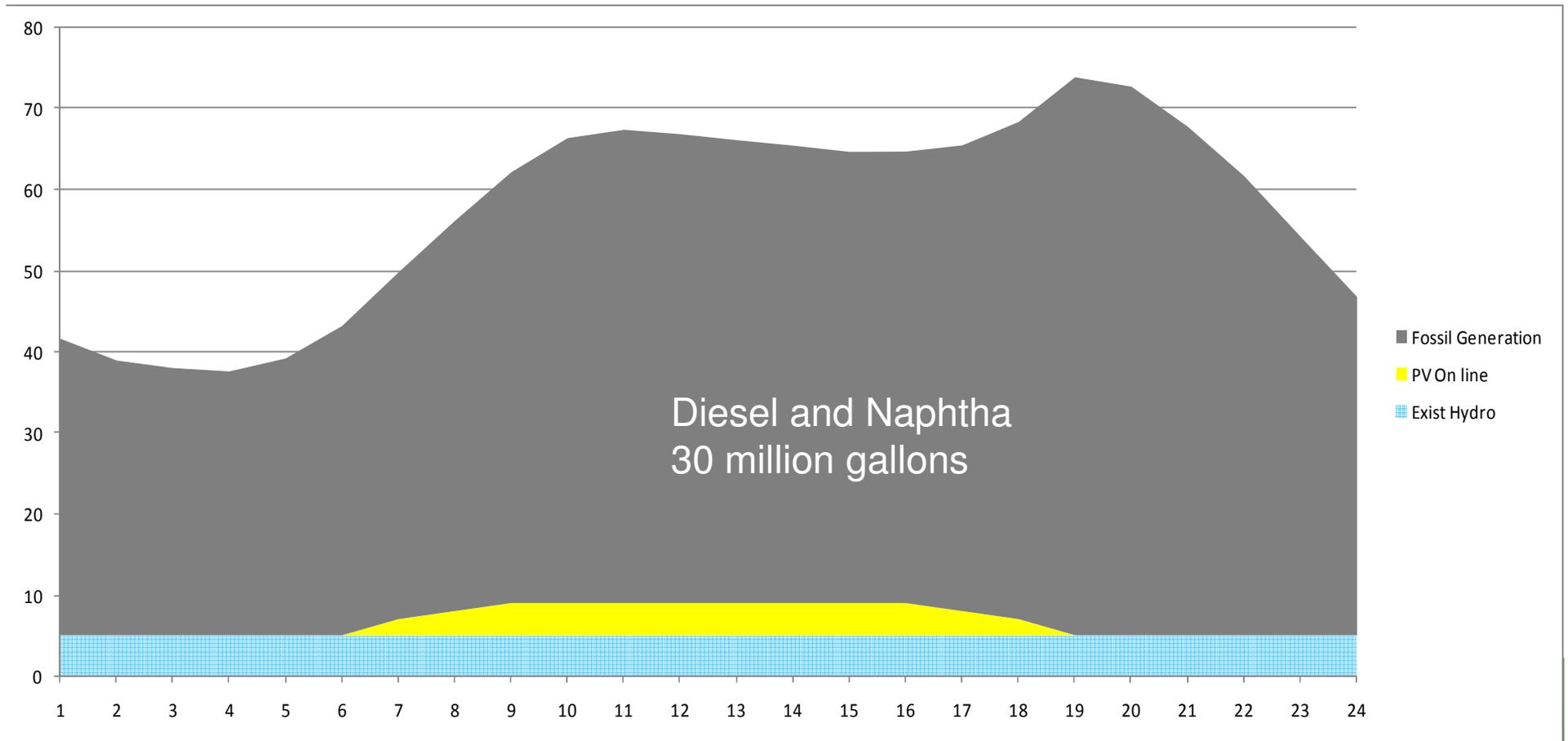




*2011 Asia Pacific Clean Energy  
Summit and Expo  
Brad W. Rockwell, Production Manager*



# 2011 Load Profile and Supply



# KIUC's Efforts Designed to:

- Reach 50% supply-side renewable
- Manage the cost of energy to our members
- Reduce dependence on imported oil
- Increase the amount of energy generated from Kaua'i resources

# Renewable Development

- Portfolio approach
- Development projects include:
  - Biomass
  - Hydroelectric
  - Solar
  - Battery Energy Storage Systems (BESS)
  - Wind...?
- End-use efficiency is key

# Biomass

- 7-20 MW firm capacity possible
- Green Energy PPA
  - 6.7 MW, 10% of energy
  - Scheduled to be on-line 2013
  - PPA signed, waiting PUC approval
- KIUC Owned
  - Assessing potential 10 MW Project



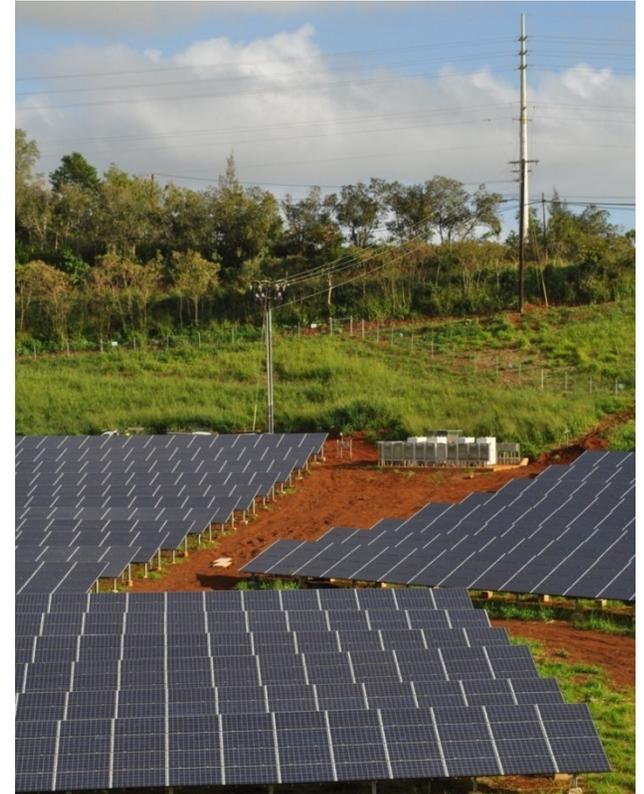
# Hydropower

- 8 existing hydro units supply 4-6 MW
- Significant future hydro potential if issues surrounding water use can be solved amicably
- Potentially lowest cost of renewable power
- Capital intensive; no fuel cost
- Limited price escalation

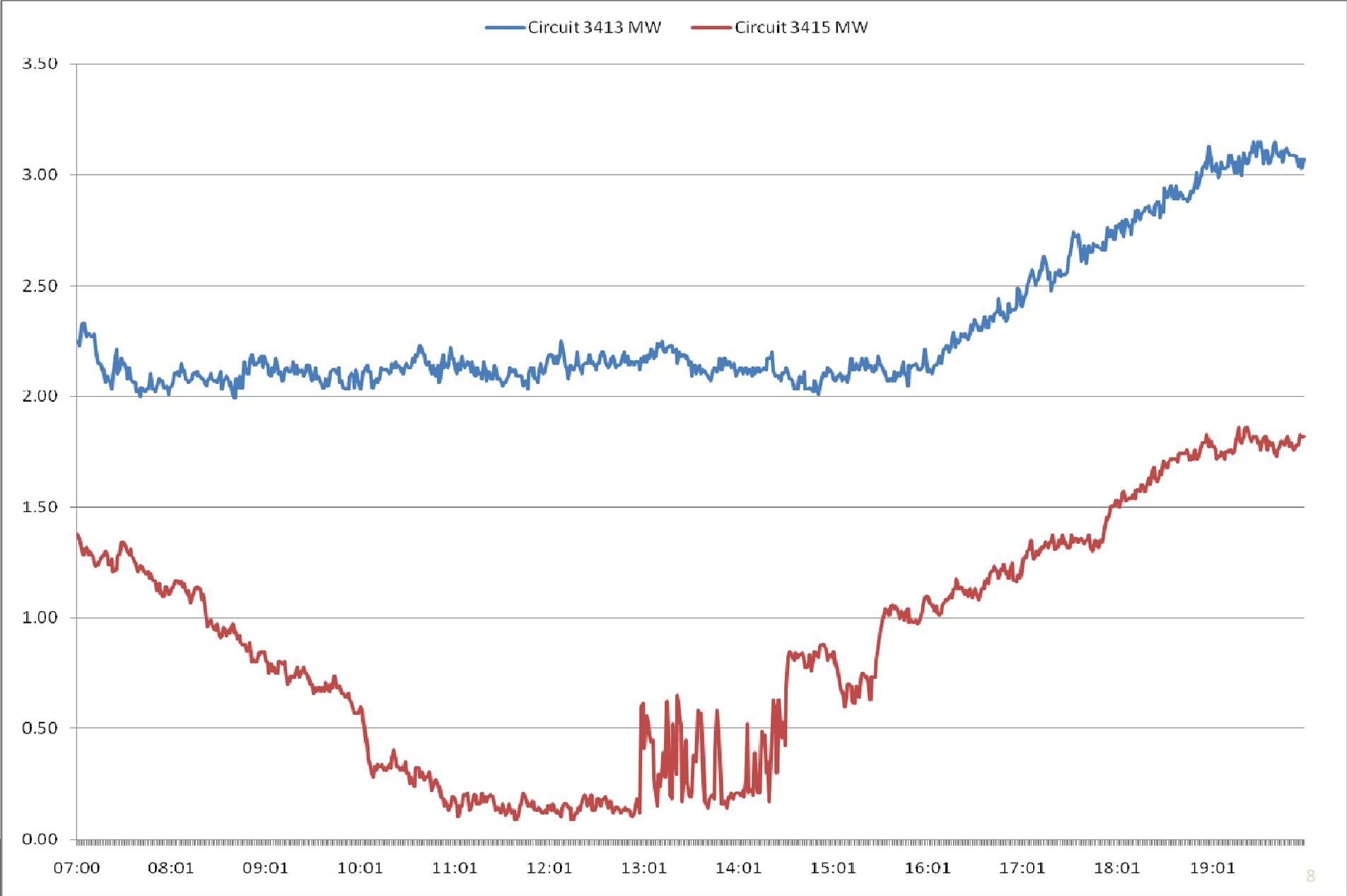


# Solar

- 10 MW supply-side installed or under contract
- 4 MW demand-side installed
- Price is good with tax incentives
- Fast completion time
- Low capacity factor, but complements load profile
- One distribution circuit operating close to 100%
- Targeting highest US solar penetration



# Solar Integration



# Solar Integration

- Conventional fleet handling solar fluctuations thus far
- 4.5 MW BESS required for 9 MW of PV coming online in 2012
- Similar to renewable development, KIUC is taking a portfolio approach toward mitigating intermittent renewables

# What about load growth?

- Efficiency measures and end user generation needed to mitigate growth impact on RPS attainment
- Less talked about but essential component of our strategy
- Technology important part
- More informed users more inclined to reduce

# For more information



[www.kiucrenewablesolutions.coop](http://www.kiucrenewablesolutions.coop)

