Illustrative Calculations regarding Aggregated Net Metering

Key Assumptions

customer's cost of electricity	$8.0	¢ / kWh
on-site electricity generation		
capacity	150	kW
service life	20	years
capacity factor	35%	
generation	459,900	kWh/year
	38,325	kWh/month
	459,900	kWh/year
	460	MWh/year
	9,198,000	kWh (total service life)
capital cost factor	$3,000	/kW
capex	$450,000	
amortized capex	$0.049	/kWh
	$1,875	/month
opex	$0.015	/kWh
	$575	/month
total capex + opex	$0.064	/kWh
cost of generation	$2,450	/month
	$29,399	/year
on-site consumption per facility		
#1 Processing facility	31,000	kWh/month
#2 Office	2,000	kWh/month
#3 Wells, pumps, other	15,000	kWh/month
total	48,000	kWh/month

Net Metering

	no on-site generation	if generation is behind meter #1	if generation is behind meter #2	if generation is behind meter #3	if meters are aggregated	
generation		1	2	3	4	
consumption behind the meter(s)	48,000	31,000	2,000	15,000	48,000	/month
on-site generation	0	38,325	38,325	38,325	38,325	/month
net consumption from grid	48,000	-	-	-	9,675	/month
consumption behind other meter(s)	-	17,000	46,000	33,000	-	/month
total amount from the grid	48,000	17,000	46,000	33,000	9,675	/month
economics						/month
net cost of purchased electricity	$3,840	$1,360	$3,680	$2,640	$774	/month
cost of on-site generation		$2,450	$2,450	$2,450	$2,450	/month
total electricity cost	$3,840	$3,810	$6,130	$5,090	$3,224	/month
	$46,080	$45,719	$73,559	$61,079	$38,687	/year
net savings (cost) relative to no generation		$30	-$2,290	-$1,250	$616	/month
		$362	-$27,479	-$14,999	$7,393	/year