Item RENEWABLE GENERATION - IPP Projects Kolvulu Wird					by the	party a	nd parti	es involved.													4
RENEWABLE GENERATION - IPP Projects			08			09		20				20			-	012			20 <sup>-</sup>		
Kabuku Wind	ACTIVITIES & TASKS	Q3	Q4	Q1	Q2	Q3	Q4	Q1 Q2	Q3	Q4	Q1	Q2	Q3 Q4	Q	Q2	Q3	Q4	Q1	Q2	Q3	G
	Complete term sheet Perform IRS/Negotiate PPA Commercial operation date (proposed by IPP)	X		x			x														E
	Complete term sheet Perform IRS & PRS/Negotiate PPA Commercial operation date (proposed by IPP)	x			x															x	
Volokai and/or Lanai Wind	Awaiting proposal from IPP Bifurcate bids from RFP Non-firm RE Implementation studies Developers update proposals/pricing		x			X		x													-
	Perform IRS/Negotiate PPA Submit PPA for approval							^		x	x										+
Honua Waste-to-Energy	Complete term sheet Perform IRS/Negotiate PPA	x		x							~										Ŧ
C&C Waste-to-Energy	Commercial operation date (proposed by IPP) Request PUC Waiver from competitive bidding Perform IRS/Negotiate PPA Commercial operation date (proposed by IPP)							x					X		x						
RFP Non-firm RE	Developers' Proposals due Select short list of bids	x	x																		
RENEWABLE GENERATION - Utility																					
	Execute DSG Agreement File DSG Agreement for PUC Approval Commercial operation date	X	x						x												
	Emission test Engineering/Technical Evaluation Permits and approvals Conversion/Installation		x				x														
	Construction complete Commercial operation date				x	x															_
CIP CT-2 (Biofuel)	Request for waiver to PUC PUC application for project		x x												+						+
	Testing on K3 Biofuel testing study complete	L					x		x		L									_	+
Military DG	Prepare DG Proposal(s) (timing based on RFP) Negotiate DG Agreements			x				x													+
	Permitting and Approvals Commercial operation date												X								
	RATION Request opening of feed-in tariff docket			x																	-
Mandatory Solar Roofing, SB644	Revisions to address SB644 issues		x																		+
ay-As-You-Save Solar Program	Application to expand program to 2,500 systems (statewide)		x																		
	Complete program design. Submit Program application for PUC approval		x x																		+
	File stipulation with PUC to replace system cap with circuit cap						x														T
	1) Initiate energy usage study     2) Lead potential study for energy efficiency, demand response, and renewable substitution     3) PUC, State, utilities identify 6 energy efficiency measures				x x x																+
	4) Deliver new measures					x															_
Distributed Generation & Distributed Energy Resources	Review DG interconnection tariff Rule 14H, as modified May 2008, for transparency, efficiency, and opportunities for process improvement. Specify the interconnection study requirements for each general type of DG, the time required, and the utility process and time for mitigating grid issues.				x																
	Develop modifications, if necessary, to Rule 14H. Develop and complete a Locational Value Map						x x														
	Complete review of utility properties such for use as PV and/or CSP sites			x																	
	PUC approval of higher customer rebates completed	x																			
	Implement HECO Residential Dynamic Prilcing Pilot     program, filed April 2008, pending PUC approval		~																		+
	2) Customer portal (info feedback) proposal part of AMI		x																		+
	system application 3) File HECO CIDLC and RDLC program renewals,		x																		+
	including aggregator plan of action 4) File HECO CIDLC program aggregator pilot			x			x														+
t	(5) File recommendations for demand response to address frequency fluctuations from intermittent RE     (6) Evaluate Res DPP program, determine schedule to						x														
	apply as option to all HECO residential, consider application to C&I customers as option							x													
	1) Implement residential inclined block rates in HELCO 2006, HECO 2007, and MECO 2007 rate cases, pending PUC approval			x																	
	2) Implement aggressive residential TOU optional rates in HECO 2009 rate case, filed July 2008, pending PUC approval     3) File PHEV rate application, that encourages off peak						x														_
	vehicle charging, to coincide with commercialization of PHEVs.																				
, I	1) Apply existing optional TOU rates to C&I customers with AMI meters on opt-out basis (customers without AMI may opt-in to TOU)			x																	
	2) Initiate COS study by TOU rate periods as basis for mandatory C&I TOU     3) Complete COS study and design mandatory C&I TOU		x												_				$\left  - \right $		+
1		1		1	I	1		x			1							1			
	rate 4) Eliminate load factor blocks and implement flat rates for						x														
	rate						x														

## HELCO TIMELINE

HAWAII ELECTRIC LIGHT COMPANY, II		will not	d to br	iuctifie -	by the	narti-	and nort		(olycal													_
The following milestones are agreed upon	by the parties. Any deviation from the milestones	will nee	d to be	justified	l by the	e party	and part	ies inv	olved.													_
		20				09				10			20				201				2013	
Renewable Energy Commitments ENEWABLE GENERATION - IPP Projects	ACTIVITIES & TASKS	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2 Q3	Q
PGV Geothermal	Complete term sheet		x																			
	Perform IRS/Negotiate PPA					х																
	Commercial operation date (proposed by IPP)										х											
Hamakua Biomass or Hu Honua	Complete term sheet		Х																			
	Perform IRS/Negotiate PPA					X					v											
Hawaii County Waste-To-Energy	Commercial operation date (proposed by IPP) County council did not approve project.										х											
and boardy made to Energy																						
Sopogy Solar	Perform IRS/Negotiate PPA	X	v																			
	Commercial operation date (proposed by IPP)		х																			
Na Makani Wind and PSH	Complete term sheet			х																		
	Perform IRS/Negotiate PPA						Х															
	Commercial operation date (proposed by IPP)						a Makani															
				Dec. 1,	2008.	No upda	ate receiv	ed.														
NERGY EFFICIENCY/CUSTOMER SITED GENE	RATION																					
V	Request opening of feed-in tariff docket			х																		
Mandatory Solar Roofing, SB644	Revisions to address SB644 issues		x	1			$\vdash$					+				$\vdash$				T	-+-	
	Application to expand program to 2,500 systems			<u> </u>			$\vdash$					+ +										_
ay-As-You-Save Solar Program	(statewide)		х																			
ay no rou dave dolar rightin	(datemete)																					
PV Host Program	Submit Program application for PUC approval			Х																		
Net Energy Metering	File stipulation with PUC to replace system cap with circuit cap						x															
let Energy Metering	circuit cap																					
	Review DG interconnection tariff Rule 14H, as modified																					
	May 2008, for transparency, efficiency, and opportunities																					
	for process improvement. Specify the interconnection																					
Distributed Generation & Distributed Energy	study requirements for each general type of DG, the time required, and the utility process and time for mitigating				х																	
Resources	grid issues.																					
	gin issues.																					
	Develop modifications, if necessary, to Rule 14H.						Х															
	Develop and complete a Locational Value Map						X															
	Complete review of utility properties for use as PV and/or																					_
	Complete review of durity properties for use as PV and/of CSP sites			x																		
Facilitate Development of Solar Generation																						
PEAK REDUCTION/PEAK SHIFTING																						
	1) File HELCO load management programs with																				-	
Demand Response Program & Load Management	aggregator plan of action				х																	
	2) File recommendations for demand response to																					
	address frequency fluctuations from intermittent RE						x															
	3) Evaluate Res DPP program, determine schedule to																					
	apply as option to all HELCO residential (contingent upon																					
	full scale installation of AMI meters and communication							x														
	system. Consider application to C&I customers as option							^														
				<u> </u>			$\vdash$					+ +										_
Residential TOU Rates	<ol> <li>Implement residential inclined block and TOU rates in</li> </ol>						+		-							+				+ +		—
	HELCO 2006 rate case, pending PUC approval			x																		
				^																		
	<ol> <li>Implement aggressive residential TOU optional rates in</li> </ol>						+					+ +								+ - +		
	HELCO 2009 rate case			1																		
	3) File PHEV rate application, that encourages off peak																					
	vehicle charging, to coincide with commercialization of PHEVs.			1																		
						L																
Commercial TOU Rates	1) Apply C&I TOU rates proposed in HELCO 2006 rate			1					1													
	case on an interim basis to C&I customers selecting AMI			1																		
	meters, on opt-out basis (customers without AMI may opt- in to TOU)			х																		
	····==/			1																		1
	<ol> <li>Eliminate load factor blocks and implement flat rates</li> </ol>						+					+										+
	<ol> <li>Eliminate load factor blocks and implement flat rates for all C&amp;I customers in HELCO's 2009 rate case</li> </ol>																					
	<ol> <li>Mandatory TOU rates to apply to all C&amp;I customers</li> </ol>			<u> </u>			$\vdash$					+ +										_
		11		1					1													
	with demand charges when C&I AMI deployment is																					
	with demand charges when C&I AMI deployment is complete																					
DECOUPLING																						

	) y the parties. Any deviation from the milestones w 	ill need	l to be j	ustified	by the	party a	and parti															
			1	<u></u>			anu parti	es invo	ivea.													
Popowable Energy Com-itt-																			-			
	ACTIVITIES & TASKS		800			009 Q3				010 Q3			20	11 Q3		-	2012 Q2 Q3		~	201	13 Q3	
Renewable Energy Commitments RENEWABLE GENERATION - IPP Projects	ACTIVITIES & TASKS	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2 Q3	Q4	Q1	Q2	Q3	Q4
Shell Wind	Complete selection of performance standards		Х		~																	
	Perform IRS/Negotiate PPA Commercial operation date (proposed by IPP)			Awaitir	X na upda	te bv Sl	hell Wind															
Lanai Solar	Perform IRS/Negotiate PPA	х																				
	Commercial operation date (proposed by IPP)		X																			
Oceanlinx Wave	Complete NUG form	Awaiti	ng revise	ed propos	sal form	by Oce	eanlinx															
Pulehu Biomass	Complete term sheet			x																		
	Perform IRS/Negotiate PPA					х																·
	Commercial operation date (proposed by IPP)	Awaiti	ng upda	te by Pule	ehu Bio	mass																
Landfill gas (Waste-to-Energy)			1	Unknow	n Status	5																·
KWP II	Settlement Agreement	x																				
	Perform Wind Integration Study			x																		
	Perform IRS/Negotiate PPA Commercial operation date (proposed by IPP)				x		x															
	commercial operation date (proposed by IFF)						^															
ENERGY EFFICIENCY/CUSTOMER SITED GENER																						
	Request opening of feed-in tariff docket	L		x	L				L	L									L			
	Revisions to address SB644 issues		v						-	-												
wanualory Solar Rooling, SB644	REVISIONS TO BOOTESS SEC44 ISSUES	1	x			+	+ +												+			
	Application to expand program to 2,500 systems		х																			-
Pay-As-You-Save Solar Program	(statewide)	-																				
PV Host Program	Submit Program application for PUC approval			x																		
++'	File stipulation with PUC to replace system cap with circuit						+ +									+ +			+			
	cap						x		L	L												_
	Review DG interconnection tariff Rule 14H, as modified May 2008, for transparency, efficiency, and opportunities																					
	for process improvement. Specify the interconnection																					
	study requirements for each general type of DG, the time required, and the utility process and time for mitigating grid				х																	
	issues.																					
Distributed Generation & Distributed Energy Resources																						
	Develop modifications, if necessary, to Rule 14H.						X															
	Develop and complete a Locational Value Map						x															
	Complete review of utility properties for use as PV and/or CSP sites			x																		
Facilitate Development of Solar Generation																		_				
																						·
PEAK REDUCTION/PEAK SHIFTING	1) File MECO load management programs with aggregator																	-				
Demand Response Program & Load Management	plan of action				х																	
	2) File recommendations for demand response to address																					
	frequency fluctuations from intermittent RE						x															
	<ol> <li>Evaluate Res DPP program, determine schedule to</li> </ol>																					
	apply as option to all MECO residential (contingent upon																					
	full scale installation of AMI meters and communication system. Consider application to C&I customers as option							x														
		1						1														
ļ									L	L									<u> </u>			
Residential TOU Rates	1) Implement residential inclined block rates in MECO						$\left  \right $															
	2007 rate case, pending PUC approval			x																		
	2) Implement aggressive residential TOU optional rates in MECO 2009 rate case																					-
	<ol> <li>File PHEV rate application, that encourages off peak vehicle charging, to coincide with commercialization of</li> </ol>																					
	PHEVs.																					
	1) Apply C&I TOU rates proposed in MECO 2007 rate case	1	1				+ +	1	<u> </u>	<u> </u>									+			
	on an interim basis to C&I customers selecting AMI meters on opt-out basis (customers without AMI may opt-in to																					
	TOU)			x																		
	2) Eliminate load factor blocks and implement flat rates for	1				1																-
	all C&I customers in MECO's 2009 rate case	1						1														
<sup> </sup>	<ol> <li>Mandatory TOU rates to apply to all C&amp;I customers with</li> </ol>	<del> </del>					+ +		<u> </u>	<u> </u>								+ +	+			
	demand charges when C&I AMI deployment is complete																					
L																						
· · · · · · · · · · · · · · · · · · ·														_								
DECOUPLING	Decouple utility revenues, timing contingent on filing date of																					

Existing renewable IPP contracts with energy charge tied to oil prices

Name	Prime Mover [Primary Fuel]	Contract Effective Term [Term Years]
Hawaiian Electric Company, Inc.		
H-POWER	Steam Turbine [Mun Waste]	Mar 31, 1986 (Jun 30, 1992 for FCA) to Jul 31, 2015 or at least 52 months' advance notice to terminate [25]
Hawaii Electric Light Company, Inc.		
Hawaii Electric Light Company, Inc.	Geothermal Turbine (ten 3 MW)	Mar 25, 1986 (Feb 14, 1990 for FCA) to at least Dec 31, 2027
Puna Geothermal Ventures	[Geothermal]	[minimum 35]
Hawi Renewable Development, Inc. [HRD]	Wind Turbine [Wind] (sixteen .660 MW)	May 19, 2006 to at least May 18, 2021 (minimum 15)
Tawhiri Power LLC (wholly owned subsidiary of Apollo Energy Corporation)	[Wind] Hydro Turbine	Apr 3, 2007 to at least Apr 2, 2027 [minimum 20]
Wailuku River Hydroelectric Limited Partnership	(two 5 MW) [Water]	Mar 6, 1991 to May 12, 2023 [30]
Maui Electric Company, Ltd.		
Hawaiian Commercial & Sugar [HC&S] (a division of Alexander and Baldwin)	Steam Turbine 5 steam (TG3 10, TG4 18, TG5 16, TG1 10, TG2 2) and 3 hydro (Kaheka 4.5, Paia 0.9, Hamakua 0.6) [Bagasse]	Nov 30, 1990 to at least Dec 31, 2014
Kaheawa Wind Power, LLCOwner; UPC Wind Management, LLCOperator; Kaheawa Wind FarmFacility	Wind Turbine (twenty 1.5 MW) [Wind]	Jun 9, 2006 to at least Jun 8, 2026 [minimum 20]
Makila Hydro, LLC	Hydro Turbine [Water]	Sep 22, 2006 to at least Sep 21, 2026 [minimum 20]

Note:

Utility's filed short-term avoided energy cost and filed Schedule Q rate are tied to fossil fuel pri